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Industrial Catalogue

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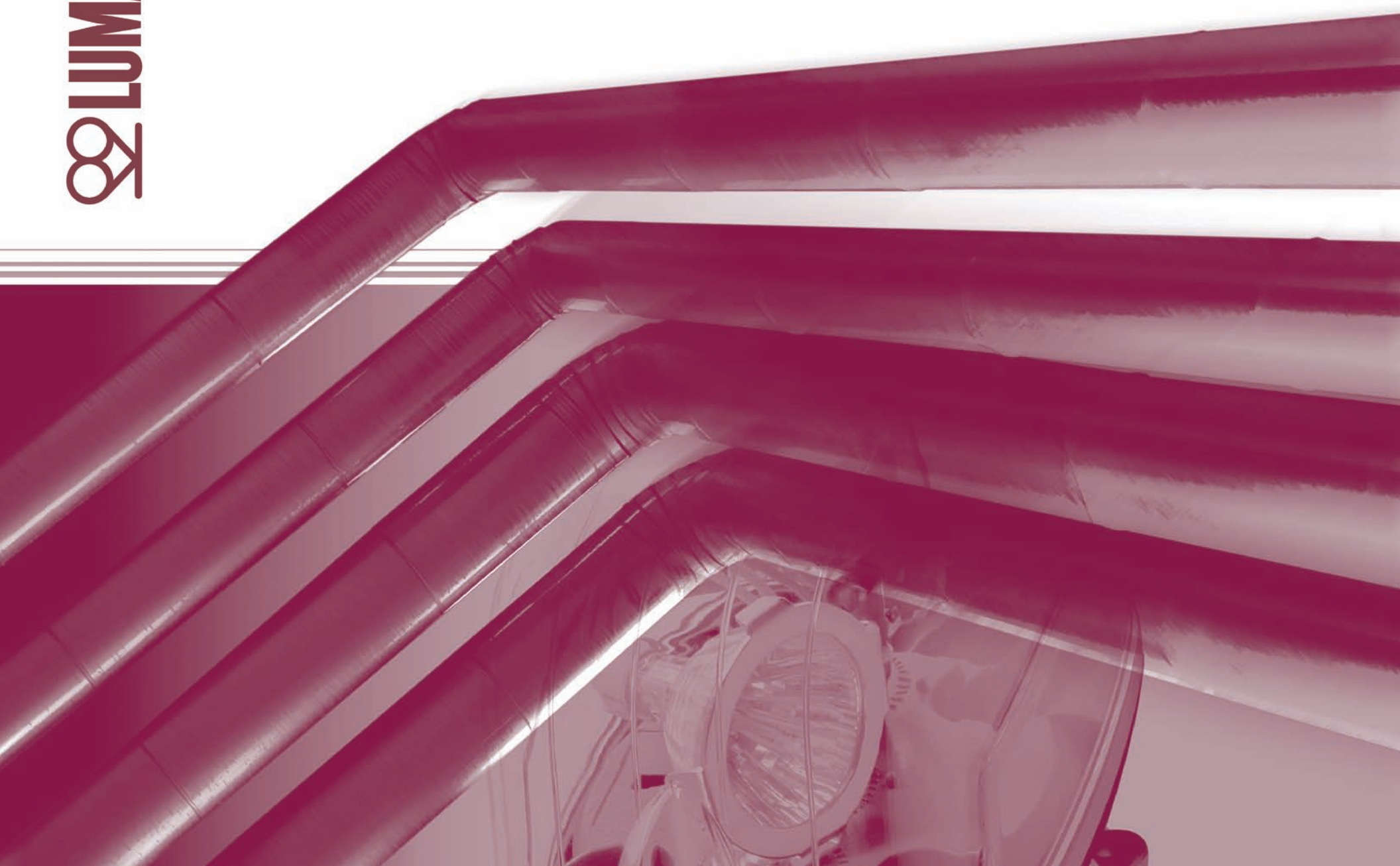
Special Collection



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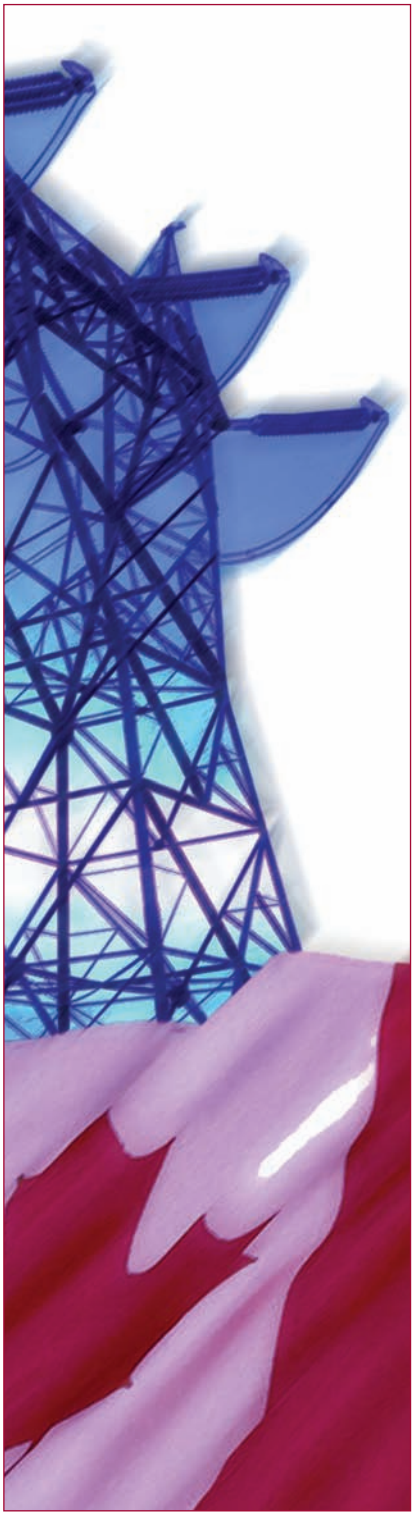
Special Collection



C.E.C. Code Changes

In 1998, the Canadian Electrical Code® (C.E.C.) adopted the International Electrotechnical Commission's (IEC) “Three Zone Area” Classification System for Class I hazardous locations. The Zone System is an alternate classification for Class I hazardous locations and was adopted to promote harmonization with international standards.

The Division System for Class I hazardous locations continues to be used for existing facilities and is expected to remain in use at least for the next few editions of the C.E.C. For this reason, this catalogue's certification information for Class I hazardous locations includes both the pre-1998 Division System and the new I.E.C. Zone System.

The following pages provide an overview of C.E.C. hazardous location classifications.

Classes

The Canadian Electrical Code (C.E.C.), Part I, Section 18 - Hazardous Locations, identifies three classes of hazardous locations:

- **Class I** - Gas and Vapour Environments
- **Class II** - Dust Environments
- **Class III** - Fibers and Flyings Environments

The 1998 revisions to the C.E.C. affect only Class I - Gas and Vapour Environments.

Hazardous location is defined by the C.E.C. as premises, buildings or parts thereof in which there exists the hazard of fire or explosion due to highly flammable gases and/or flammable, volatile liquid mixtures that are manufactured, used or stored in other than the original containers.

This definition can also be extended to include combustible dust and easily ignitable fibers that are likely to be present in sufficient quantities to produce an explosive mixture.

Class I — Gas and Vapour Environments

Locations which are deemed hazardous due to the presence of **gases or vapours** that are present in the air in a sufficient quantity to produce explosive or ignitable mixtures.

Locations identified as Class I require that enclosures and connectors be explosion-proof.

Class I hazardous locations are further subdivided into :

- **Divisions** (pre-1998 version of the C.E.C.), or
- **Zones** (I.E.C. Classification - 1998 C.E.C.)

The Division System may still be used for the maintenance and repair of existing facilities. All new construction must use the I.E.C. Zone Classification.

Divisions

- **Division 1** — a Class I location where the hazardous atmosphere is expected to be present during normal operations on a continuous, intermittent or periodic basis.

- **Division 2** — a Class I location in which volatile flammable liquids or gases are handled, processed or used but in which they would normally be confined within closed containers or closed systems from which they can escape only in the event of an accidental rupture or breakdown of the containers or systems.

Hazardous Locations — C.E.C. Classifications

Class I — (continued)

Zones

- **Zone 0** — Class I locations in which explosive gas atmospheres are present continuously or are present for long periods.

- **Zone 1** — Class I locations in which:
  i. explosive gas atmospheres are likely to occur in normal operation; or
  ii. explosive gas atmospheres may exist frequently because of repair or maintenance operations or because of leakage; or
  iii. the location is adjacent to a Class I, Zone 0 location, from which explosive gas atmospheres could be communicated.

- **Zone 2** — Class I locations in which:
  iv. explosive gas atmospheres are not likely to occur in normal operation and if they do occur they will exist for a short time only; or
  v. flammable volatile liquids, flammable gases or vapours are handled, processed, or used, but in which liquids, gases or vapours are normally confined within closed containers or closed systems from which they can escape only as a result of accidental rupture or breakdown of the containers or systems or the abnormal operation of the equipment by which the liquids or gases are handled, processed or used; or
  vi. explosive gas atmospheres are normally prevented by adequate ventilation by which may occur as a result of failure or abnormal ope-ration of the ventilation system; or
  vii. the location is adjacent to a Class I, Zone 1 location from which explosive gas atmospheres could be communicated, unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

Area Classification — Divisions vs. Zones

Continuous Hazard	Intermittent Hazard	Hazard Under Abnormal Conditions
Zone 0	Zone 1	Zone 2
Division 1		Division 2

Class I Equipment

Electrical equipment that is approved for use in Class I Hazardous Location Areas (HLAs) is referred to as explosion-proof or flame-proof. This designation means that the equipment has been designed and manufactured to ensure that it will not become a source of ignition when used in a Class I, Gas and Vapour HLA.

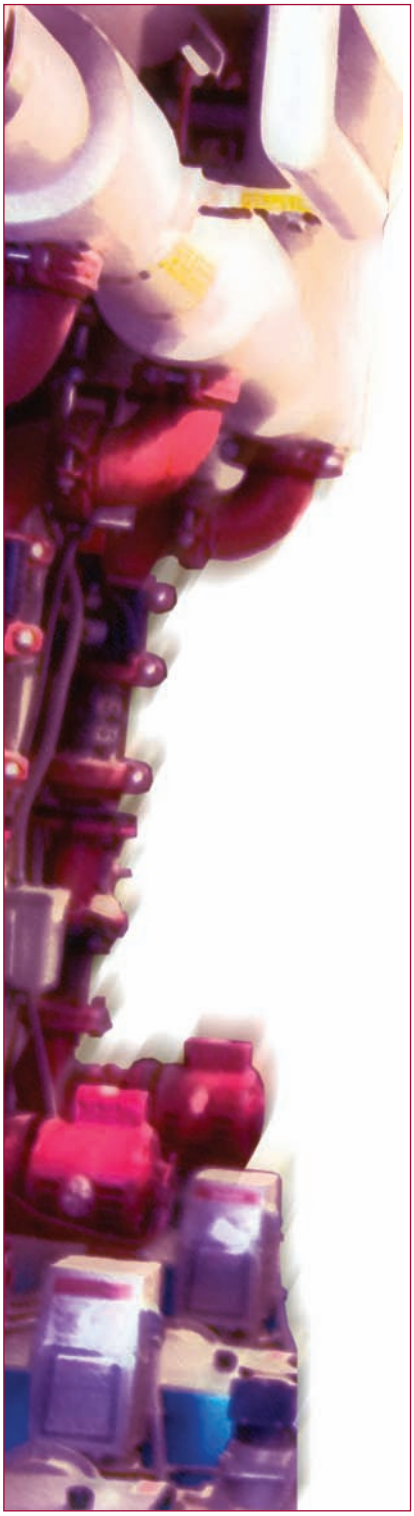
All explosion proof equipment is clearly identified by either:

- a «Class I Location» marking (Division System); or
- a «Type of protection “d”» marking (IEC Zone System).

Gas Group Designations

Two systems of groupings for gases are included in the 1998 C.E.C: the pre-1998 Division Gas Groups consisting of Groups A, B, C and D; and the IEC System consisting of Groups IIA, IIB and IIC.
Both systems are accepted by the C.E.C.

Hazardous Locations — C.E.C. Classifications



Class I — (continued)

Comparison of Hazardous Location Gas Group Designations From Most Restrictive to Least Restrictive

Typical Gas Hazard	Division Gas Groups	1998 CEC and IEC Gas Groups
Acetylene	A	IIC
Hydrogen	B	
Ethylene	C	IIB
Propane	D	IIA

Division Gas Groups

- **Group A**
  acetylene
- **Group B**
  butadiene, ethylene oxide, hydrogen, manufactured gases containing more than 30% hydrogen (by volume), propylene oxide.
- **Group C**
  acetaldehyde, cyclopropane, diethyl, ether, thylene, unsymmetrical dimethyl hydrazine (UDMH 1, 1-dimethyl hydrazine).
- **Group D**
  acetone, acrylonitrile, alcohol, ammonia, benzene, benzine, benzol, butane, 1-butanol, 2-butanol, butyl acetate, isobutyl acetate, ethane, ethanol, ethyl acetate, ethylene dichloride, gasoline, heptanes, hexanes, isoprene, methane, methanol, 3-methyl-1-butanol, methyl ethyl ketone, 2-methyl-1-propanol, 2-methyl-2-propanol, naphtha, natural gas, petroleum naphtha, octanes, pentanes, 1-pentanol, propane, 1-propanol, 2-propanol, propylene, styrene, toluene, vinyl acetate, vinyl chloride, xylenes

I.E.C. Zone Gas Groups

- **Group IIC**
  acetylene, butadiene, propylene oxide, carbon disulphide, hydrogen or other gases or vapour of equivalent hazard
- **Group IIB**
  cyclopropane, diethyl ether, ethylene, ethylene oxide, hydrogen sulfide, unsymmetrical dimethyl hydrazine (UDMH) or other gases or vapour of equivalent hazard
- **Group IIA**
  acetaldehyde, acetone, acrylonitrile, alcohol, ammonia, benzine, benzol, butane, ethylene dichloride, gasoline, hexane, isoprene, lacquer solvent vapours, naptha, natural gas, propane, propylene, styrene, vinyl acetate, vinyl chloride, xylenes or other gases or vapour of equivalent hazard

Hazardous Locations — C.E.C. Classifications

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Comparison of Division and I.E.C. Zone Systems

Class 1	Division System	I.E.C. Zone System	Notes
Gases and Vapours	Division 1	Zone 0	Zone 0 locations are a small percentage of all hazardous locations.
		Zone 1	While the wiring practices and acceptable products differ, Class I, Division 1 locations encompass both Zones 0 and 1.
	Division 2	Zone 2	Zone 2 and Division 2 are essentially the same.

Class II — Dust Environments

Locations which are deemed hazardous due to the presence of **combustible or electrical conducting dusts**.

Class II locations normally require that enclosures and connectors be dust tight.

Class II — Divisions

Class II locations are further divided in two divisions as follows:

- **Division 1** — In which combustible dust is or may be in suspension in air continuously, intermittently or periodically under normal operating conditions.
- **Division 2** — In which combustible dust may be in suspension in the air as a result of infrequent malfunctioning.

Class II — Group Designations

The Canadian Electrical Code (C.E.C.), Part 1 Section 18 - Hazardous Locations defines various groups which have been established for the purpose of testing and approval.

- **Group E** — Comprising atmospheres containing metal dust including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics.
- **Group F** — Comprising atmospheres containing carbon black, coal or coke dust.
- **Group G** — Comprising atmospheres containing flour, starch or grain dust, and other dusts of similarly hazardous characteristics.

Class III — Fibers and Flyings Environments

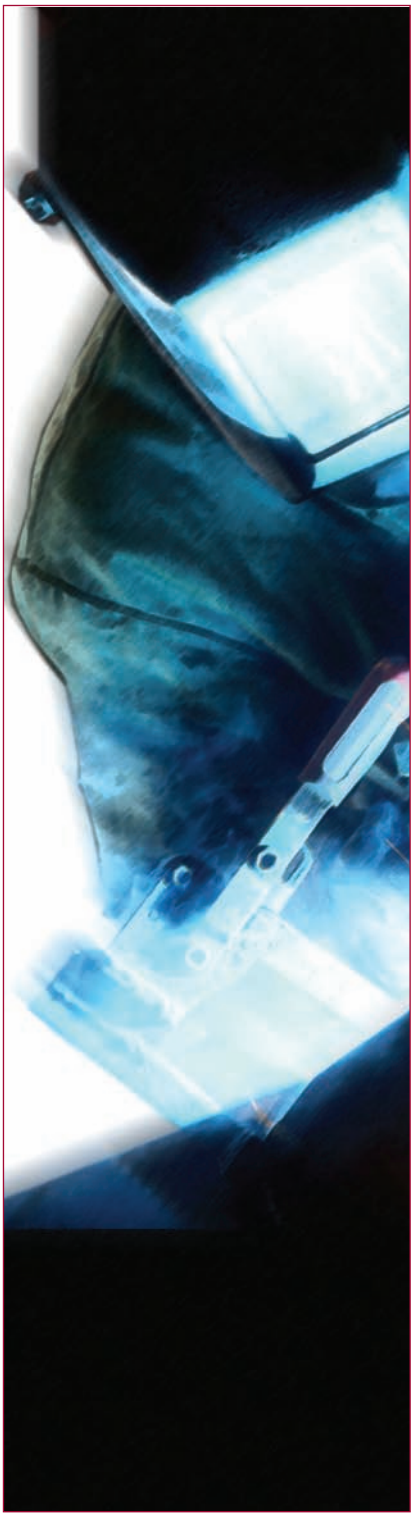
Locations which are deemed hazardous due to the presence of **easily ignitable fibers or flyings**, but in which such fibers or flyings are not likely to be in suspension in the air in sufficient quantities to produce ignitable mixtures.

Class III locations normally require that enclosures and connectors be constructed to minimize the entry of fibers or flyings.

Class III — Divisions

Class III locations are further divided in two divisions as follows:

- **Division 1** —In which readily ignitable fibres or materials producing combustible flying are handled, manufactured or used.
- **Division 2** — In which readily ignitable fibres other than those in process of manufacture are stored or handled.



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IP Rating

Although IP is mainly a European rating system, it is referred to more and more in North America, especially for lighting fixtures needing a wet location label.

The first number of an IP rating represents the degree of protection against penetration of solids and the second number, the degree of protection against penetration of water. So, for example, a wall sconce that is rated IP65 is completely protected against penetration of dust particles and against jets of water.

Degree of protection

FIRST IDENTIFICATION NUMBER Degree of protection against penetration of solids.	
0	Not Protected
1	Protected against penetration of solids larger than 2”
2	Protected against penetration of solids larger than 1/2”
3	Protected against penetration of solids larger than 3/32”
4	Protected against penetration of solids larger than 1/32”
5	Protected against penetration of dust
6	Completely protected against penetration of dust

SECOND IDENTIFICATION NUMBER Degree of protection against penetration of water.	
0	Not Protected
1	Protected against vertical fall of water drops
2	Protected against the fall of water at a maximum angle of 15”
3	Protected against rain
4	Protected against splashes
5	Protected against jets of water
6	Protected against waves
7	Protected against the effects of immersion
8	Protected against the effects of prolonged immersion

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Products

RG12S-E Series

page 16

High Capacity Combo Unit

The **RG12S-E series** combines an efficient exit sign with a high capacity battery unit. This simplifies typical installations and helps save on wires runs. Energize either many remote fixtures off of one “combo” or, a few high power fixtures mounted directly on the unit.

LER-HZ Series

page 18

Hazardous Location Exit Sign Class I Zone 2

Extremely resistant to water, strong impacts, vibrations and variations in temperature, the **LER-HSZ** is ideally suited for areas whith the risk of presence of flammable gases, vapors or liquids able to create an explosive gas atmosfere.

LERE-XP Series

page 20

Hazardous Location Exit Sign Class I, II, III

The **LERE-XP** Series of remote exit signs are designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist.

LEREOB12L Series

page 22

NEMA-3R Certified Bilingual Exit Sign

The **LEREOB12L** Series exit sign is specifically designed for industrial applications requiring protection against adverse environmental conditions. This exit sign is ideally suited for high abuse areas, wet locations, dust- and oil-tight applications.

LTEU Series

page 24

Power-Free Exit Sign

The **LTEU** Series exit sign is completely self-luminous, requiring no electrical source, and is ideally suited for applications where electrical installation is hazardous or prohibitively expensive such as historical buildings, mines and industrial facilities.

3LER3000 Series

page 26

NEMA-4X Certified Combo Unit

A complete emergency lighting solution, these products are designed for use in a wide range of commercial and industrial environments where humidity, dust, water infiltration and the risk of vandalism are specification criteria.

LER3000 Series

page 28

NEMA-4X Certified Exit Sign

A complete emergency lighting solution, these products are designed for use in a wide range of commercial and industrial environments where humidity, dust, water infiltration and the risk of vandalism are specification criteria.

RG-X Series

page 30

Hazardous Locations Unit and Combo, Class I, II, III

Extremely resistant to water, strong impacts, vibrations and variations in temperature, the **LER-HSZ** is ideally suited for areas whith the risk of presence of flammable gases, vapors or liquids able to create an explosive gas atmosfere.

3LERHZ Series

page 32

Combination Unit for Class I Zone 2 Hazardous Locations

The **3LERHZ** Series of combination units (unit equipment and exit sign) are designed specifically for installation in hazardous locations and other high-abuse, industrial environment.

page 36

MQM-HZ Series

Remote Fixture for Hazardous Locations Class I Zone 2

The **MQM-HZ Series** of remote fixtures has been designed specifically for installation in hazardous locations and other and high-abuse, industrial environments.

page 38

MQM-NX Series

Remote Fixture - Water Proof NEMA-4X Series

A complete emergency lighting solution, these products are designed for use in a wide range of commercial and industrial environments where humidity, dust, water infiltration and the risk of vandalism are specification criteria.

page 40

Saf-T-Ray Series

Vandal Resistant Wall Mount Remote Head

The **Saf-T-Ray™** wall sconce unit was designed and engineered with durability and sophistication in mind. Its low-profile aesthetic design will provide an attractive alternative to the typical two-headed standard emergency lighting unit.

page 42

RS10XP Series

Remote Lighting Fixtures for Hazardous Location Class I, II, III

The **RS10XP** Series of remote emergency lighting heads is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics, tissues are permanently present or are likely to exist.

page 44

RS-WP Series

Remote Fixture - Water Proof Series

PAR 36, surface-mounted industrial remote fixtures. Available in single, double or triple head fixtures. Durable thermoplastic construction suitable for industrial or high abuse areas.

page 45

RS-WPRB Series

Water Proof Series

Sealed beam, PAR 36, surface-mounted, rubber coated industrial remote fixture.

page 45

MT-W4T Series

Water Proof Series

NEMA-4X listed, surface-mounted, square industrial remote fixture. Available with tungsten or quartz lamps in single or double head configurations. Gray fiberglass base and clear polycarbonate lens.

page 46

RS10/RS20/RS30T Series

Surface Mounted Series

PAR36, surface-mounted, large remote fixtures. Single, double or triple head. Positive aim swivel. Available in factory white (standard) and black.

page 47

RSQB/RSQBD/RSQB2 Series

Surface Mounted Series

Cubic, vandal-resistant surface-mounted fixture. Single, double or twin cube with center body. Available in factory white (standard) and black with frosted polycarbonate cube.

RGS-DT Series

page 50

NEMA-12 Cassified, 6, 12 and 24 Volts Battery Units

The **RGS-DT Series** battery units are specifically designed for use in industrial facilities where equipment is exposed to dust, water, oil or corrosive substances.

RG-NX Series

page 52

NEMA-4X Certified Battery Unit

A complete emergency lighting solution, these products are designed for use in a wide range of commercial and industrial environments where humidity, dust, water infiltration and the risk of vandalism are specification criteria.

RG-HZ Series

page 54

Battery Unit for Hazardous Locations Class I Zone 2

The **RG-HZ Series** of battery units are designed specifically for installation in hazardous locations and other high-abuse, industrial environments. Extremely resistant to water, high impacts, vibrations and variations in temperature.

IPL™ Series

page 56

IP65 Linear Fluorescent Fixture

The **IPL™** Series of fluorescent fixtures by Lumacell are offered as normally on standard linear fluorescent fixtures. When used with one of our fluorescent inverters, the **IPL™** is converted to a self-powered emergency lighting unit.

LUMA Source Series

page 62

120 VDC Central Single Source

In an existing or new installation where exit signs and emergency lighting may be supplied by a single 120VDC source using a common negative wire and a switched positive.

DC Central Systems

page 64

Fully Automatic Charger

Lumacell's Central DC Systems are utilized where a large number of remote heads or standard 120 Volt incandescent fixtures. The systems offer the advantage of a central location for maintenance with full supervision of all operating functions.

Zone Sensing VSR Series

page 68

The **VSR** (Voltage Sensing Relay) option activates all of the emergency lighting if only one, multiple or all zones become de-energized through either a power failure or lighting circuit breaker tripping.

Nexus System

page 70

The **NEXUS** project started in Australia. Following many successful installations "down under",Thomas & Betts decided to adapt **NEXUS** to North American norms and specifications, as this system is a truly useful maintenance tool for property owners and managers.

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CATALOG

Exit Signs

LUMACELL

RG12S-E Series

High Capacity Combo Unit
Up to 360 watts of Remote Capacity

Features

- **High quality steel enclosure with corrosion resistant undercoating**
- **Fully C860 approved "Exit" legend illuminated with ALINGAP LEDs**
- **Available in 12 volts, 110, 144, 250 and 360 watts**
- **Standard 120/347Vac input**
- **Optional Auto-test charger (available with 110 watts only)**
- **Long life, maintenance free lead acid battery**
- **Sealed dust-proof transfer relay**
- **Solid state pulse type charger standard**

C860 AT AUTO TEST

The RG12S-E series combines an efficient exit sign with a high capacity battery unit. This simplifies typical installations and helps save on wires runs. Energize either many remote fixtures off of one "combo" or, a few high power fixtures mounted directly on the unit

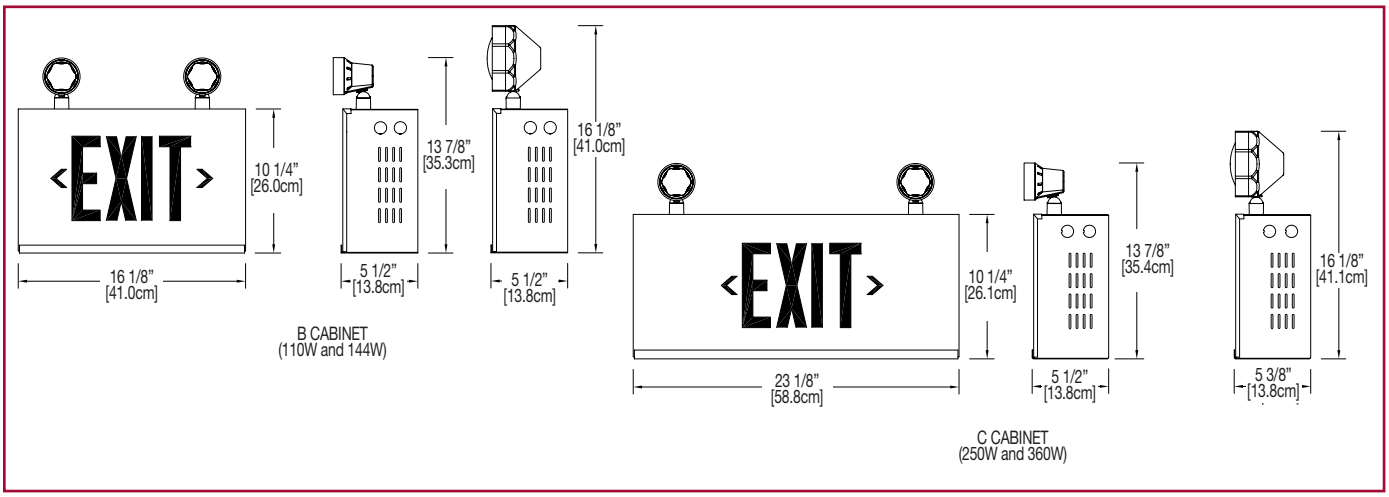
Typical Specification

Supply and install a unit that combines an illuminated LED exit sign with an emergency light battery unit. The housing and faceplate shall be constructed of steel. The faceplate shall come standard with knock out chevrons. The light source for the exit sign shall be LED. The LED lamps shall provide illumination in normal and emergency operation. Red LEDs shall be of **ALINGAP*** technology. The charger board, the battery and the LEDs shall be contained in a single housing. A diffuser optimized for LEDs shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

The unit shall include a test switch and high charge pilot light. The equipment shall be designed to furnish exit illumination from the normal AC source. When a power failure occurs, the exit sign along with the emergency heads shall illuminate for a minimum of 30 minutes. The power available for emergency lights shall be at least 110 watts or as otherwise specified.

The heads shall require no tools to aim and shall be as specified. The exit sign shall be CSA-C860-07 approved.
The equipment shall be Lumacell Model – RG12S_____.

Dimensions



Ordering Information

EXAMPLE:

RG12S110	E	2	MT9W	B	ZC	AT
Series	**Lettering**	**# of Heads**	**Head Style and Wattage**	**Colour***	**Voltage**	**Options**
RG12S110 = 12V-110watts	**E** = EXIT	**Blank** = no heads	**MT9W** = mini tungsten, 12V - 9watt, wedge base	**Blank** = factory white	**Blank** = 120/347VAC	**AT** = autotest (110w only)
RG12S144 = 12V-144watts		**1** = one head	**MT18W** = mini tungsten, 12V - 18watt, wedge base	**B** = Black	**ZC** = 277VAC	**Blank** = No options
RG12S250 = 12V-250watts		**2** = two heads	**MQ8W** = mini halogen, 12V - 8watt, quartz bi-pin			
RG12S360 = 12V-360watts		**3** = three heads	**MQ12W** = mini halogen,12V -12watt, quartz bi-pin			
			MM12W = mini halogen,12V - 12watt, MR16			
			MM20W = mini halogen, 12V - 20watt, MR16			
			LH9W = large tungsten ,12V - 9watt, wedge base			
			LH18W = large tungsten, 12V - 18watt, wedge base			
			LH25W = large tungsten,12V - 25watt, DCB			
			LQ12W = large halogen,12V - 12watt, quartz bi-pin			
			LQ20W = large halogen, 12V - 20watt, quartz bi-pin			
			LQ55W = large halogen,12V - 55watt, quartz bi-pin			
			SB12W = large tungsten,12V - 9watt, sealed beam			
			SB18W = large tungsten,12V - 18watt, sealed beam			
			SB25W = large tungsten, 12V - 25watt, sealed beam			
			SQ8W = large halogen,12V - 8watt, quartz sealed beam			
			SQ12W = large halogen,12V - 12watt, quartz sealed beam			
			D12W = Deco head DR130, 12V - 12watt, MR16			
B Cabinet for 110w or 144w and C Cabinet for 250w or 360w			**D20W** = Deco head DR130, 12V - 20watt, MR16	* Other colours availble on demand. Consult your sales representative.		
			D35W = Deco head DR130, 12V - 35watt, MR16			
			D50W = Deco head DR130, 12V - 50watt, MR16			

***ALINGAP** (AlInGaP): Aluminum, Indium, Gallium and Phosphorus. ALINGAP LED offers a higher light efficacy, with the Lumen/Watt ratio 300% to 500% higher than the traditional GaAs LED.*
AlInGaP Exit signs are designed for 10 years+ of CSA/UL photometric compliance. AlInGaP LEDs show an annual light loss rate 10 times lowers than the average light loss of standard GaAs LEDs.

HAZARDOUS LOCATION LED EXIT SIGN

Class I, Zone 2 - compliant LED exit sign

The LER-HZ Series of Exit signs has been designed specifically for installation in hazardous locations and other high-abuse, industrial environments. Extremely resistant to water, high impacts, vibrations and variations in temperature, the LER-HZ Series is ideally suited for areas with the risk of presence of flammable gases, vapors or liquids able to create an explosive gas atmosphere.

Features

- **Certified Class I Division2, Groups A, B, C and D as per CSA C22.2 No.137-M1981, Class I, Zone 2, Groups IIC, IIB and IIA**
- **Temperature Code: T6 (maximum 85ºC as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981)**
- **Certified CSA C860-07**
- **Suitable for cold-weather: -20ºC (self-powered model, "CW" option) and -40ºC (AC-only and AC-DC models)**
- **Input voltages: 120 to 347Vac universal AC-input; 6 to 48Vdc universal DC-input**
- **High impact thermoplastic frame, with built-in gasket to prevent water infiltration**
- **Sealed faceplate of heavy-duty, vandal-resistant polycarbonate**
- **Tamper-resistant, hermetically sealed magnetic test switch**
- **Self-test / self-diagnostic circuitry is standard on self-powered models**
- **Sealed, maintenance-free, Nickel-Cadmium batteries**
- **Batteries recharge as per CSA requirements and provide 90 minutes of emergency operation**
- **Long-life, energy-efficient ALINGAP red LED light source**
- **Energy efficient – consumes less than 3 watts in AC or DC mode**

Typical Specification

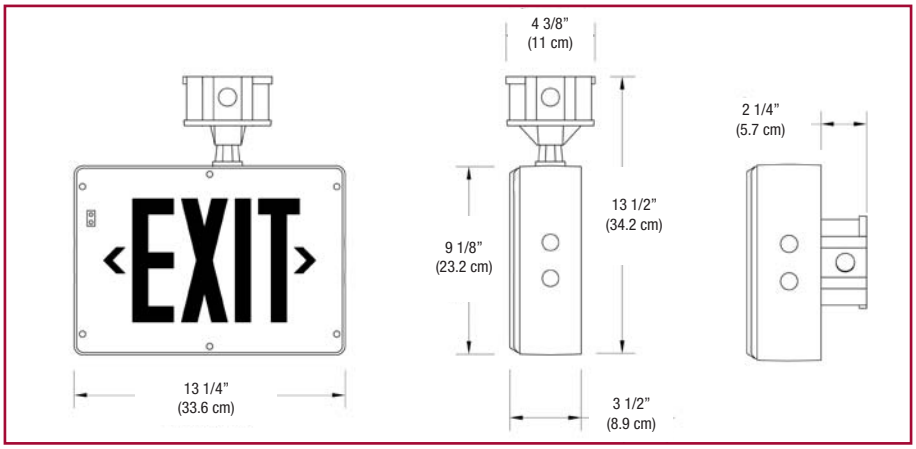
Supply and install Lumacell LER-HZ Series LED exit signs. The equipment shall operate with universal two-wire AC input voltage from 120Vac to 347Vac at less than 3 watts and universal two-wire DC input voltage from 6Vdc to 48Vdc at less than 2 watts for single and double face signs. Designed specifically for hostile environments, the equipment frame shall be of industrial grade high impact thermoplastic with a gasket around lenses and canopy. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be ALINGAP. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination.

The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D with a temperature code T6 (Maximum 85ºC). The equipment shall be designed specifically for high abuse areas, wet location, and cold weather (-20°C) applications. The self-powered model shall stay illuminated during emergency operation for at least 90 minutes upon AC failure and shall include a magnetic test switch and self-testing / self-diagnostic functions.

The equipment shall automatically self test for 5 minutes every 30 days, 30 minutes every 60 days and 90 minutes annually. A "Service required" lamp shall be located near the test switch and flash when a fault is detected. A two-LED diagnostic display shall be located inside the equipment and shall identify the eventual source of failure (battery, charger circuitry, or LED lamps).

The exit sign shall be CSA-C860-07 approved.
The exit sign shall be Lumacell Model – _____.

Dimensions



Power Consumption

Model	AC Specs		DC Specs	
AC/DC red	120 to 347Vac	Less than 3W	6 to 48Vdc	Less than 2W
AC/DC green	120 to 347Vac	Less than 3W	6 to 48Vdc	Less than 2W
Self-powered red	120 to 347Vac	Less than 3W	NiCad battery	Min. 90 minutes
Self-powered green	120 to 347Vac	Less than 3W	NiCad battery	Min. 90 minutes

Ordering information

EXAMPLE:

LERHZ	500	SG	SPD	GN
Series	**Faces/Mounting**	**Colour**	**Voltage**	**Options**
LERHZ = EXIT hazardous location	**500** = single face, ceiling or wall mount **600** = double face, ceiling mount only	**SG** = grey/grey	**Blank** = universal120-347Vac, 6-48Vdc **SPD** = 120-347Vac, self-powered c/w diagnostic (non audible) **VACDC2** = 120Vac, 120Vdc 2 wire (AC only) **NEX** = Nexus System Interface* *Nexus option with self-powered models only	**Blank** = no option **GN** = green letters **CW** = cold weather* *(-20ºC for self-powered, -40ºC for AC/DC)

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LERE-XP Series Hazardous Location Exit Signs

RSTP Series Transfer Panels

CSA certified for use in hazardous locations

Class I, Zone 1, Groups IIC, IIB and IIA for Severity Code 1 products

Class I, Zone 1, Groups IIB and IIA for Severity Code 2 products

Class I, Zone 2, Groups IIC, IIB and IIA for Severity Code 3 products

Features

REW-XP Series Exit Signs

- **CSA Certified for use in hazardous locations:**
  - **Class I, Divisions 1 and 2, Groups A, B, C, D**
  - **Class II, Divisions 1 and 2, Groups E, F, G**
  - **Class III, Divisions 1 and 2**
- **Die-cast aluminum body with gray epoxy powder coat finish**
- **Exit housing and faceplate made of industrial-grade 14-gauge steel and finished in gray enamel**
- **Faceplate features universal knockout chevrons**
- **Two-wire input circuit for both AC and DC inputs**
- **Available in 6, 12, 24 and 120Vac/dc**
- **LED lamp with ALINGAP LEDs; consumes less than 5 Watts in AC and DC mode**
- **New, easy-to-build catalogue number based on the Lumacell Severity Codes**
- **CSA certified, meets or exceeds C860-07 requirements**

RSTP Series Transfer Panel

- **Available with hazardous location housing (Class I, II and III) or NEMA-1 housing (for use outside the hazardous location area)**
- **Standard AC input: 120Vac, optional 277Vac, 347Vac; standard DC input: 6, 12 or 24Vdc**
- **Two-wire output with permanently present AC/DC low voltage**
- **Output power: 25W, can drive up to five (5) units of the LERE-XP remote exit series**
- **Also available as self-powered exit sign, battery unit and combo unit; see RG-X catalogue sheet**

The LERE-XP Series of remote exit signs are designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist. The LERE-XP remote exit signs can be connected to the RSTP transfer panel (see below), the RG-X Series of battery equipment, or the Lumacell DC system.

Typical Specification

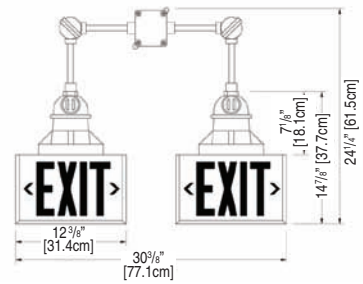
LERE-XP Series Remote Exit Sign: Supply and install the Lumacell LERE-XP Series remote exit sign. The exit housing shall be industrial grade 14-gauge steel and finished in gray enamel. The faceplate will be constructed of heavy-duty 14-gauge steel and feature universal knockout chevrons and the red letters shall not be less than 6" (150 mm) in height with a 3/4" (19 mm) stroke. The sign shall come complete with a ____Volt LED lamp, and function from one voltage source only, in AC and DC current. The LED Lamp shall use ALINGAP LEDs and shall consume less than 5 watts in either AC or DC current. The exit sign shall be CSA-C860-07 approved. The exit sign shall be suitable for Class ___, Division ___, Group ____. The exit sign shall be Lumacell Model - _____.

RSTP Series Transfer Panel: Supply and install the Lumacell RSTP Series transfer panel for hazardous location remote exit signs. The unit shall have two voltage inputs: ____ Vac and ____ Vdc and shall be able to maintain an output of ____Volts 25 watts for the permanent supply of a total of four remote LED exit signs. The transfer panel shall be suitable for Class ___, Division ___,Group ___ or for a NEMA 1 environment. The unit shall be Lumacell Model - _____.

Dimensions

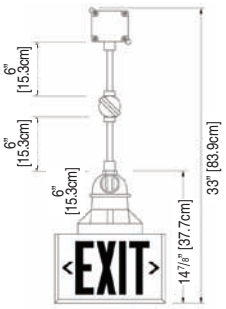
SEVERITY S1, S2

DOUBLE PENDANT MOUNT

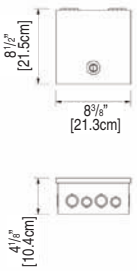


CEILING MOUNT

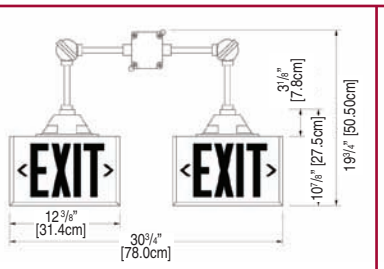
PENDANT MOUNT

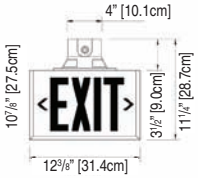


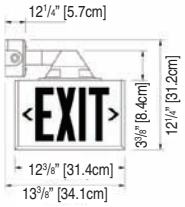
No Severity Rating

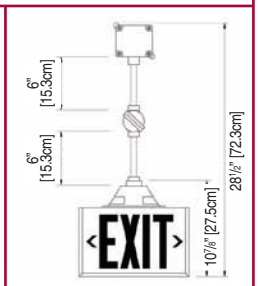


SEVERITY S3, S4

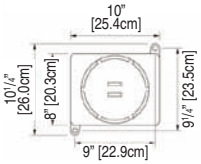








Severity Class S1, S2, S3 and S4



Before ordering, identify the environment of your application: Class___, Division___, Group___. Refer to the following chart for the Severity Code to use in your catalogue number:_____ .

Environment	Severity Code
Cl. I, Div. 1, Gr. A, B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G Cl. III, Div. 1 & 2	S4

For temperature information, please look at the table below:

Certification Guide for LERE-XP Series Exit Signs (40°C ambient)				
Severity Code	S1	S2	S3	S4
Temperature Code	T6	T6	T3C	T3C (EGF)
CSA/UL rating	Max 85°C	Max 85°C	Max 160°C	Max 160°C

Ordering Information

EXAMPLE:

LERE1X	-L12		S1	W
Series	**Voltage**	**Lamp Type**	**Severity Code**	**Mounting**
LERE1X = exit single face C860 LED **LERE2X** = exit double face C860 LED	**-L6** = 6 volts **-L12** = 12 volts **-L24** = 24 volts **-L120** = 120 volts	**Blank** = L.E.D. less than 5 watts	**S1** = see chart **S2** = see chart **S3** = see chart **S4** = see chart	**C** = ceiling **P** = pendant **W** = wall

Transfer Panel

EXAMPLE:

RSTP	120	12	25	
Series	**A.C. Voltage**	**D.C. Voltage**	**Load Wattage**	**Housing**
RSTP = transfer panel	**120** = 120Vac **347** = 347Vac	**6** = 6 volts **12** = 12 volts **24** = 24 volts	**25** = 25 watts	**Blank** = NEMA 1 **XP** = hazardous location

NEMA-3R Certified Bilingual Exit Sign

The LEREOB12L Series exit sign is specifically designed for industrial applications requiring protection against adverse environmental conditions. This exit sign is ideally suited for high abuse areas and wet locations applications.

Features

- **Certified NEMA-3R**
- **Gasketed fiberglass housing designed specifically for industrial applications**
- **Gray finish is standard**
- **Sealed, vandal-resistant polycarbonate faceplate**
- **Long-life, even illumination of "EXIT SORTIE" legend provided by energy efficient, ALINGAP technology LED light source consuming less than 3 watts per face (standard AC/DC model)**
- **Wall or ceiling mounting; wall or ceiling brackets available for easy installation**
- **Normal AC and emergency DC operation – 120 to 347 volts AC input; 6 to 24 DC input**
- **CSA certified, meets or exceeds C860-01 and NRCAN/C860-01 requirements**
- **The self-powered version is also CSA C22.2 No. 141 certified**

Typical Specifications

Supply and install Lumacell LEREOB12L Bilingual Led exit sign. The equipment shall operate with universal two-wire AC input voltage from 120 Vac to 347 Vac a less than 3 Watts per face and universal two-wire DC input voltage from 6 Vdc to 24 Vdc at less than 3 Watts per face. The housing shall be of gray fiberglass, gasketed, specially designed for industrial environment. The sealed front cover shall be constructed of heavy-duty vandal-resistant transparent polycarbonate of 4mm thickness and shall be bent around the back box for increased rigidity. The front cover will feature an even illuminated legend with the text "EXIT" and "SORTIE" positioned one on top of the other. The light source shall be the new **ALINGAP** technology red LED. The equipment shall be suitable for wall or ceiling mount and be designed specifically for high abuse areas, wet locations, dust and oil-tight applications. The equipment in a self-powered configuration shall stay illuminated during emergency operation for at least 60 minutes upon AC failure.

The equipment shall be NEMA-3R, C-860 and NRCan approved.

The equipment shall be Lumacell Model - _____ .

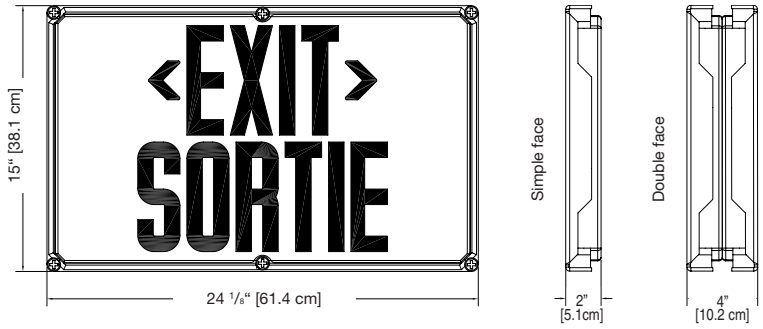
Power Consumption

Model	AC Specs*		DC Specs*	
AC/DC red	120 to 347 Vac	Less than 3W	6 to 24 Vdc	Less than 3W
Self-powered red	120 to 347 Vac	Less than 6W	NiCad battery	Min. 60 min.

Note: The values of power consumption are for single-face model (max. 6W / bilingual legend).

Note: For the certification guide and temperature codes, please refer to both pages from the LERE-XP Series of exit signs and the RS10XP Series of remote lighting fixtures or consult factory.

Dimensions



Ordering Information

EXAMPLE:

LEREO1W4T	B12L	UNIV
Model	**Lettering**	**Voltage**
LEREO1W4T = single face NEMA-3R, exit/sortie **LEREO2W4T** = double face NEMA-3R, exit/sortie **LSRSO1W4T** = single face NEMA-3R, sortie/exit **LSRSO2W4T** = double face NEMA-3R, sortie/exit	**B12L** = bilingual	**UNIV** = 120 to 347 Vac, 6 to 24 Vdc **SP** = self-powered 120 to 347 Vac

Power Free Exit Sign

Self-luminous, independent operation exit sign

The LTEU Series exit sign is completely self-luminous, requiring no electrical source, and is ideally suited for applications where electrical installation is hazardous or prohibitively expensive such as historical buildings, mines and industrial facilities. The LTEU Series can also be used for all classes and divisions of explosion-proof environments such as oil refineries, pulp and paper mills, chemical plants and grain elevators.

Features

- **Illumination provided by borosilicate glass tubes, internally coated with zinc sulphide phosphor and filled with tritium gas**
- **Minimum brightness at time of manufacture is 0.132 foot-lambert (0.452 cd/m^2)**
- **Decorative, slim-line heavy-duty ABS housing**
- **Rugged, impact-resistant polycarbonate face**
- **Spark free construction**
- **Simple installation – universal direction capability, comes complete with universal mounting hardware**
- **Stands up to extreme temperatures in outdoor or indoor applications**
- **Standard 12-year life expectancy. 15- or 20-year life expectancies available as an option**

Typical Specification

Supply and install Lumacell LTEU Series self-luminous exit signs.

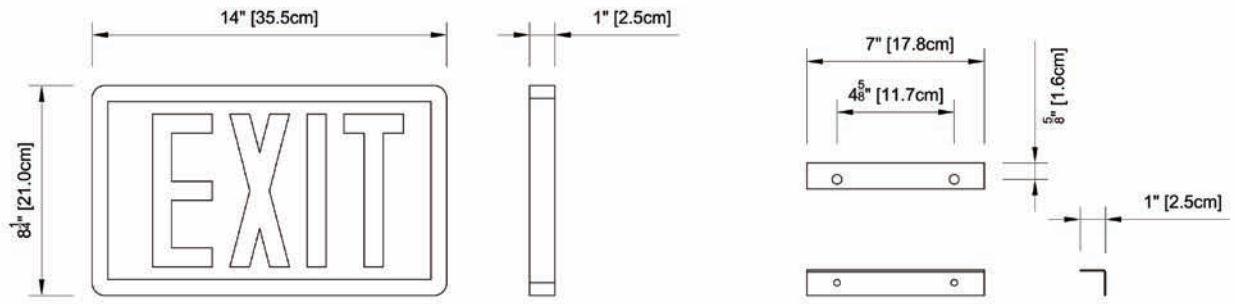
The exit shall be constructed of a thermoplastic housing and be corrosion proof. The sealed housing will incorporate no loose or removable parts allowing for easy installation. The standard expected life shall be 12 years with a minimum guaranteed life of 10 years. The standard mounting brackets will allow for either end/ceiling or wall mount. Standard signs shall be supplied with red face, grey frame and white letters that are 6” high by 3/4” stroke. The initial average minimum brightness shall be .132 foot-lambert (0.452cd/m^2)

The Exit shall be Lumacell Model - _____.

Wire Guards

460.0079	Wall Mount
460.0027	End Mount
460.0028	Ceiling Mount

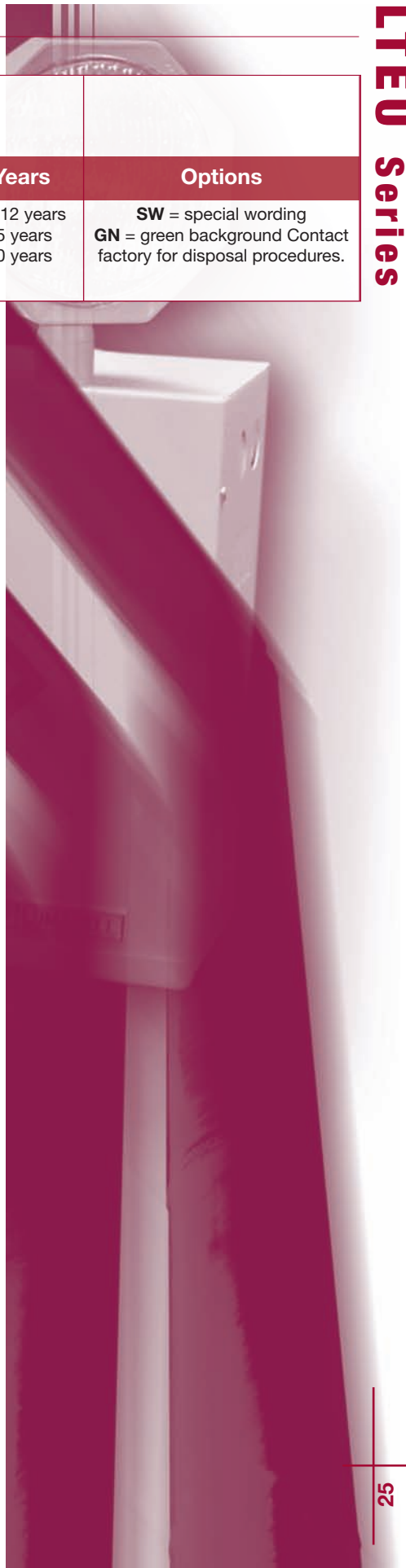
Dimensions



Ordering Information

EXAMPLE:

LTEU	1			
Series	**Faceplates/Mounting**	**Housing Colour**	**Life Years**	**Options**
LTEU = exit **LTB3LE/S** = exit/sorti **LTB3LS/E** = sortie/exit	**1** = single face, universal mount **2** = double face, universal mount	**Blank** = grey **WH** = white **B** = black	**Blank** = 12 years **15** = 15 years **20** = 20 years	**SW** = special wording **GN** = green background Contact factory for disposal procedures.



NEMA-4X

- Innovative, field-adjustable lamp head assembly
- Choice of MR16 halogen lamps up to 12V, 12W or high-efficiency, 5-Watt, MR16 LED lamps
- Long life, energy efficient ALINGAP technology red LED illuminated EXIT legend
- Can be wall or ceiling mounted
- Double face available
- Suitable for cold weather applications -40˚C (CW option — available in 6V only)

Combo Unit

NEMA-4X Certified Combo Unit

Features

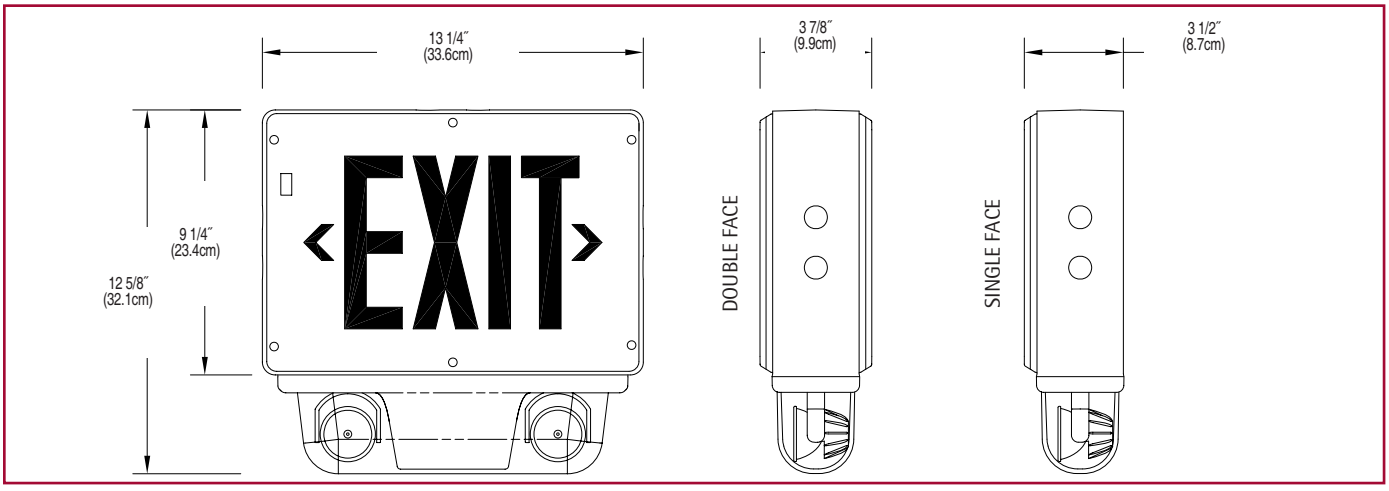
Standard

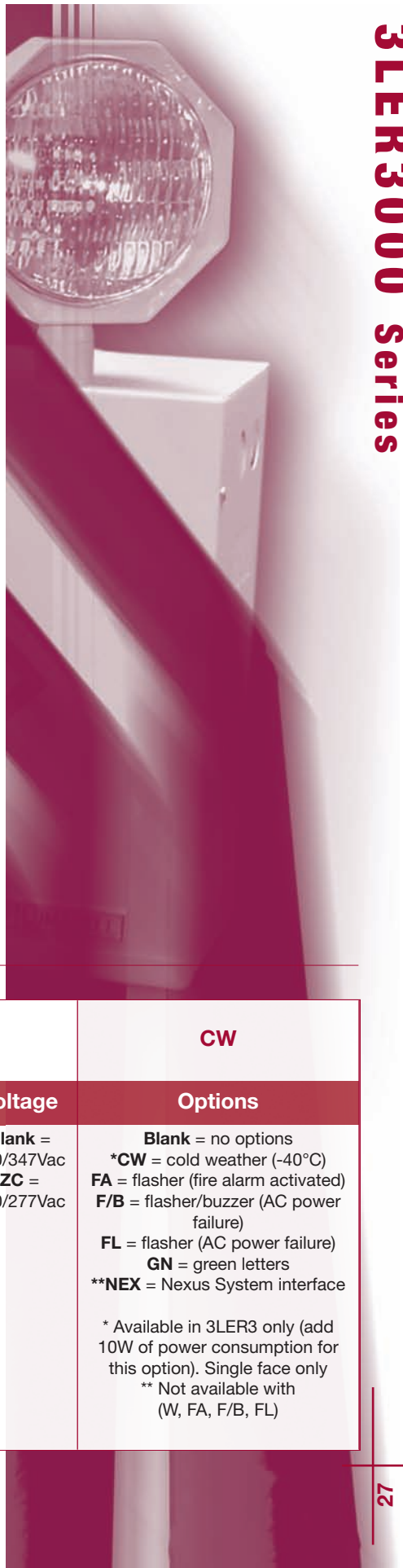
- NEMA-4X Certified for wall or ceiling mount
- High efficiency MR16 halogen lamps up to 12V, 12W or 12V, 5W white LED, MR16 emergency lights
- Uniform Alingap technology LED illuminated legend
- Comes standard with non-audible advanced diagnostic charger board, 10 minute time delay and lamp disconnect
- Audible warning and time delay functions can be enabled or disabled
- Micro-controller diagnostic system tests, detects and indicates battery, charger circuitry, LEDs or MR16 lamp failures
- Sealed, maintenance-free nickel cadmium battery
- Non-intrusive magnetic test switch
- Choice of grey, factory white or black housing and face
- NSF Certified for food processing plants
- CSA Certified, meets or exceeds C860-07 requirements
- CSA C22.2 No. 141 Certified

Optional

- Double face
- Cold weather (-40°C; 6Volt Unit)
- No heads (for more remote capacity)
- Fire alarm activated flasher
- Flasher/buzzer (AC power failure)
- Flasher (AC power failure)

Dimensions





Typical Specification

Supply and install Lumacell **3LER3000** LED exit sign and power pack series. The equipment shall operate under two operating voltage, 120Vac or 347Vac. The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy designed specifically for hostile environments. The unit shall be certified for NEMA-4X for wall or ceiling mount and designed specially for high abuse areas, wet location, and cold weather (CW option). The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and features an even illuminated legend. The legend light source shall be light emitting diodes (LED). Red LED techno-logy shall be **ALINGAP**. Emergency lights shall be fully adjustable and high efficiency MR16 lamps.
The Lumacell Advanced Diagnostic Micro-controller board shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The unit shall be rated 120/347 V, 60 Hz and be CSA listed. The unit shall have an output of ___ Volts. The charger shall at first bulk recharge the battery, then when the battery is at full capacity, the charger will shut-off and thereafter periodically pulse charge to top off the battery. This pulse-type charger promotes long battery life and reduces the potential for grid corrosion. Its charge voltage is factory set to ± 1% tolerance and temperature compensated. The charger has the functions of Lockout and Brownout Circuits, and Low Voltage Disconnection. It protects the unit from over-current, short-circuit, and reverse polarity. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with a magnetic test switch. A “Service Required” lamp shall be located near the test switch and flash when a fault is detected. A four-LED diagnostic display shall be located inside the equipment and shall identify the source of failure (battery, charger circuitry, or lamps). The exit sign shall be CSA-C860-07 approved.
The unit shall be **Lumacell** Model - _____

Power Consumption

Model	AC Specs		DC Specs	
3LER3	120/347Vac	Less than 10W	6V-36W	Min. 30 minutes
5LER3	120/347Vac	Less than 10W	12V-60W	Min. 30 minutes

Wire Guards

With heads	
460.0078	Wall Mount
460.0060	Ceiling Mount

Without heads	
460.0079	Wall Mount
460.0028	Ceiling Mount

Ordering Information

EXAMPLE:

3LER3	500	2	MI	WH		CW
Series	**Faces**	**# of Heads**	**Lamp/Wattage**	**Housing/Face Colour**	**Voltage**	**Options**
3LER3 = 6V-36W, NEMA-4X **5LER3** = 12V-60W, NEMA-4X	**500** = single face **600** = double face	**Blank** = 0 head **2** = two heads	**MI** = MR16, 6V-6W **MJ** = MR16, 6V-10W **MK** = MR16, 12V-12W **L** = LED, 12V-5W	**WH** = factory white/white **WB** = factory white/black **BK** = black/black **BW** = black/white **GW** = grey/white **GB** = grey/black **SG** = grey/grey	**Blank** = 120/347Vac **ZC** = 120/277Vac	**Blank** = no options ***CW** = cold weather (-40°C) **FA** = flasher (fire alarm activated) **F/B** = flasher/buzzer (AC power failure) **FL** = flasher (AC power failure) **GN** = green letters ****NEX** = Nexus System interface * Available in 3LER3 only (add 10W of power consumption for this option). Single face only ** Not available with (W, FA, F/B, FL)

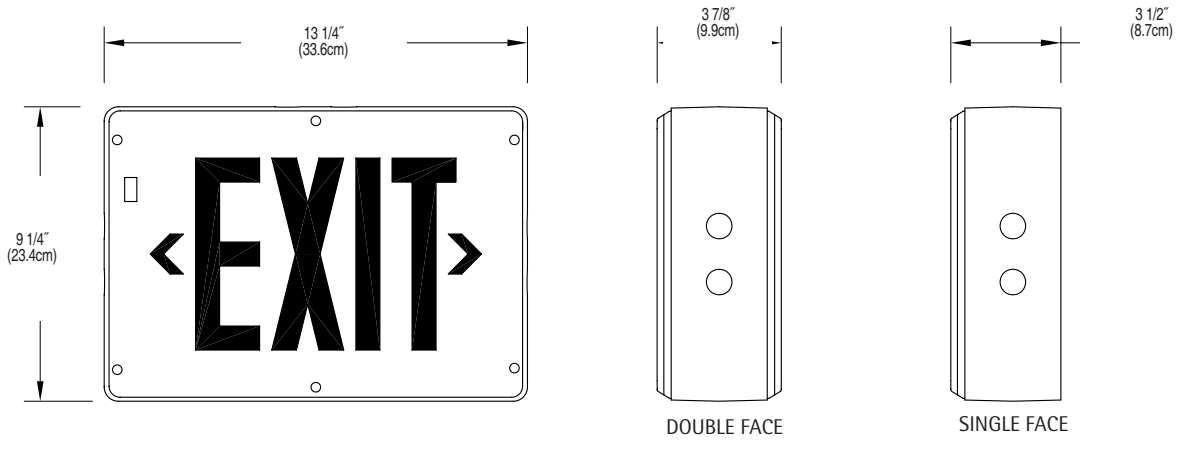
Exit Sign
NEMA-4X Certified Exit Sign

- Sealed heavy-duty, vandal-resistant polycarbonate faceplate
- Suitable for cold weather - 40°C (AC/DC model) and -25°C on self-powered model (CW option)
- Long-life, energy-efficient ALINGAP technology red LED light source
- Energy efficient – consumes less than 3 watts in AC or DC mode

Features

- Polymeric enclosure is fully gasketed around lens and canopy to prevent water infiltration - NEMA-4X Certified
- Sealed faceplate of heavy-duty, vandal-resistant polycarbonate with evenly illuminated legend
- Suitable for cold weather: -40°C for AC/DC models and -25°C for self-powered ("CW" option)
- Tamper-resistant magnetic test switch
- Self-diagnostic circuitry standard on all self-powered models
- Sealed, maintenance-free, nickel cadmium batteries for superior performance and long life
- Provides 90 minutes of emergency operation (consult factory for longer operation)
- Long-life, energy-efficient ALINGAP red LED light source
- Energy efficient – consumes less than 3 watts in AC or DC mode
- Normal AC and emergency DC operation – 120 to 347 volts universal AC 2 wire input; 6 to 48 volts universal DC
- Also available with power pack; see 3LER3000 combo unit
- NSF Certified for food processing plants
- CSA Certified, meets or exceeds C860-07 requirements
- The self-powered version is CSA C22.2 No. 141 Certified

Dimensions

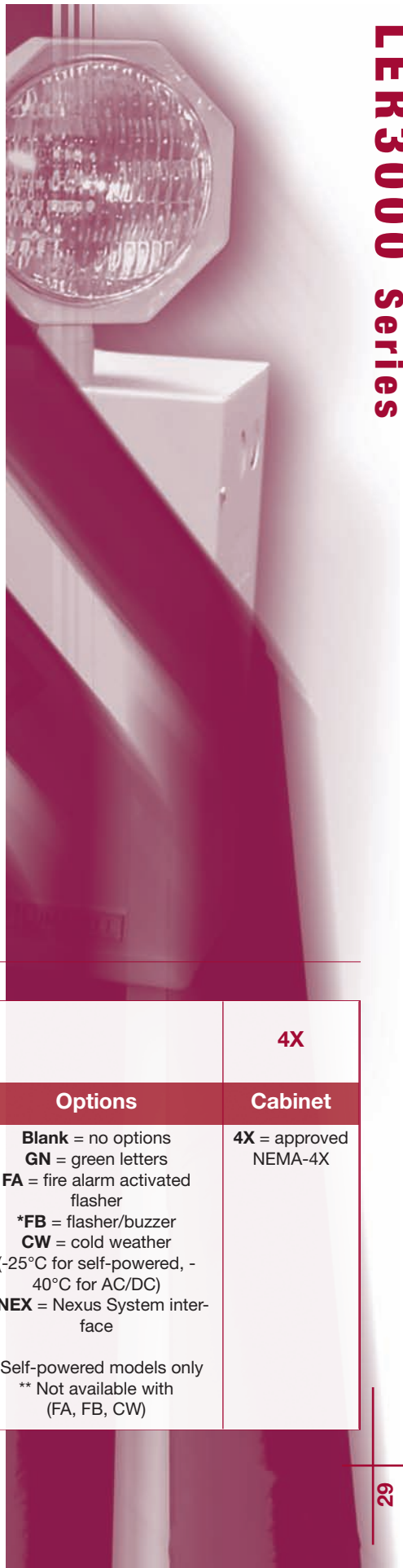


Typical Specification

Supply and install **Lumacell LER3000** Series LED exit signs. The equipment shall operate with universal two-wire AC input voltage from 120Vac to 347Vac at less than 3 watts and universal two-wire DC input voltage from 6Vdc to 48Vdc at less than 2 watts for single and double face signs. The equipment frame shall be of industrial grade polyvinyl chloride with a gasket around lenses and canopy designed specifically for hostile environments. The faceplate(s) shall be constructed of heavy-duty vandal-resistant polycarbonate and feature an even illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be Alingap. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination. The exit shall be certified for NEMA-4X and designed specifically for high abuse areas, wet location, and cold weather (-25°C) applications. The self-powered model shall stay illuminated during emergency operation for at least 90 minutes upon AC failure and shall include a magnetic test switch and self-testing and self-diagnostic functions. The equipment shall automatically self test for 5 minutes every 30 days, 30 minutes every 60 days and 90 minutes annually. A "Service Required" lamp shall be located near the test switch and flash when a fault is detected. A two-LED diagnostic display shall be located inside the equipment and shall identify the eventual source of failure (battery, charger circuitry, or LED lamps).

The exit sign shall be CSA-C860-07 approved.

The exit sign shall be **Lumacell** Model - _____.



Power Consumption

Model	AC Specs		DC Specs	
AC/DC red	120 to 347Vac	Less than 3W	6 to 48Vdc	Less than 2W
AC/DC green	120 to 347Vac	Less than 3W	6 to 48Vdc	Less than 2W
Self-powered red	120 to 347Vac	Less than 3W	NiCad battery	Min. 90 minutes
Self-powered green	120 to 347Vac	Less than 3W	NiCad battery	Min. 90 minutes

Wire Guards

With heads	
460.0079	Wall Mount
460.0027	End Mount
460.0028	Ceiling Mount

Ordering Information

EXAMPLE:

LER3	500	WH			4X
Series	**Faces/Mounting**	**Housing/Faceplate Colour**	**Voltage**	**Options**	**Cabinet**
LER3 = C860 approved	**500** = single face, universal mount **600** = double face, universal mount	**WH** = factory white/white **BK** = black/black **BW** = black/white **WB** = factory white/black **GA** = grey/grey **GW** = grey/white **GB** = grey/black	**Blank** = universal 120-347Vac, 6-48Vdc **SPD** = 120-347Vac, self-powered c/w diagnostics (non-audible) **120VACDC2** = 120Vac, 120Vdc 2 wires (AC only)	**Blank** = no options **GN** = green letters **FA** = fire alarm activated flasher ***FB** = flasher/buzzer **CW** = cold weather (-25°C for self-powered, -40°C for AC/DC) ****NEX** = Nexus System interface * Self-powered models only ** Not available with (FA, FB, CW)	**4X** = approved NEMA-4X

LUMACELL

RG-X Series
Hazardous Location

Battery Units, Self-Powered Exit Signs, Combination Units
CSA certified for use in hazardous locations

Class I, Zone 1, Groups IIC, IIB and IIA for Severity Code 1 products

Class I, Zone 1, Groups IIB and IIA for Severity Code 2 products

Class I, Zone 2, Groups IIC, IIB and IIA for Severity Code 3 products

Features

- **CSA Certified for use in hazardous locations:**
  - **Class I, Divisions 1 and 2, Groups A, B, C, D**
  - **Class II, Divisions 1 and 2, Groups E, F, G**
  - **Class III, Divisions 1 and 2**
- **Die-cast aluminum body with gray epoxy powder coat finish; clear, impact and heat resistant prismatic glass globe**
- **Long-life, maintenance-free lead-calcium battery**
- **Battery charger is current limited, temperature compensated, short-circuit proof and reverse polarity protected**
- **Emergency heads with one or twin lamp design**
- **Self-powered exit (combo) includes a transfer circuit to drive four remote LED-based exit signs**
- **Exit sign uses a LED lamp with ALINGAP LEDs**
- **Exit sign is CSA certified, meets or exceeds C860-07 requirements**
- **The self-powered version is also CSA C22.2 No. 141 certified**
- **Easy-to-build catalogue number based on the Lumacell Severity Codes**
- **Also available as remote exit signs and remote fixtures; refer to the LERE-XP and RS10XP catalogue sheets**

The RG-X Series of battery equipment is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics tissues are permanently present or are likely to exist.

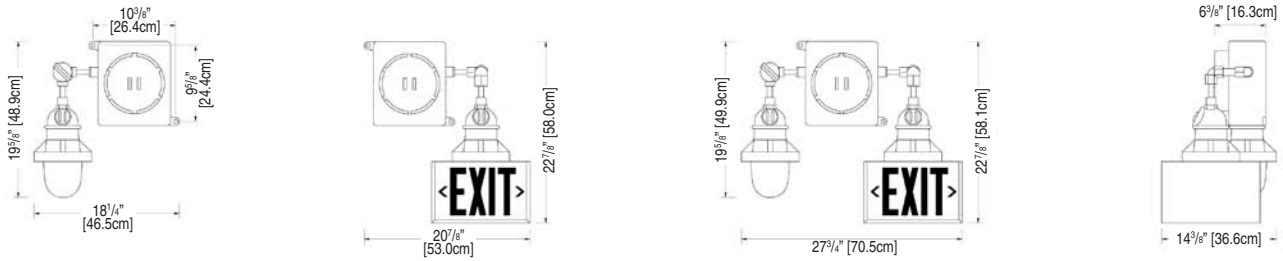
The RG-X Series combines in one simple-to-order catalogue family three traditional emergency lighting products with battery back-up: battery units with emergency lights, self-powered exit signs, and combination units with emergency lights and exit sign. The equipment is also available with additional emergency power capacity to drive remote heads and exit signs.

Typical Specification

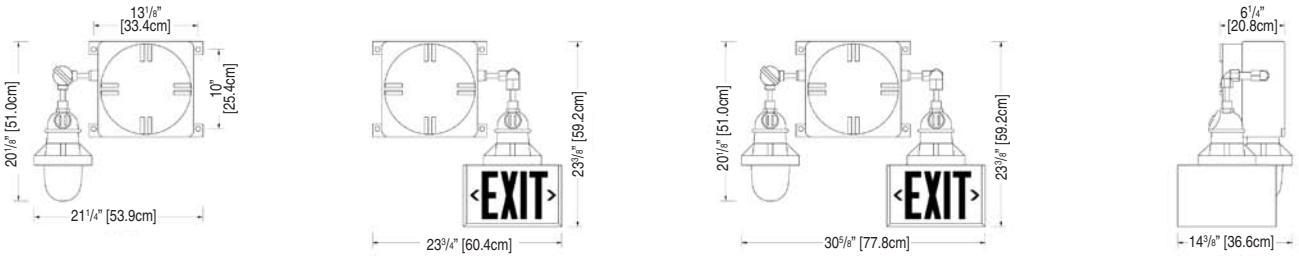
Supply and install the Lumacell RG-X Series of hazardous location battery equipment. The battery unit housing will be constructed of die cast aluminum with gray epoxy powder coat finish. The equipment shall be rated for 120, 277 or 347 volts, 60 Hz input and be CSA listed. The equipment shall have an output of ____ volts and ___ watts and shall supply the rated load for a minimum of a 1/2 hour to 87,5% of the rated battery voltage. The battery shall be a long-life, maintenance-free lead-calcium type. The charger shall be fully computer tested and have its charge voltage set in the factory to ± 1% tolerance. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected. The charger shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency heads when the utility power dips below 75% of nominal voltage.
Where required the equipment shall come complete with ____ heads, each of them equipped with ___ lamp(s) of ____ watts. The head housing shall be die-cast aluminum with gray epoxy powder coat finish. The lenses shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed, with no need for external seals.
Where required the equipment shall come complete with one exit sign and will include a transfer circuit to maintain the exit sign permanently lighting in both normal and emergency operation. The exit housing shall be industrial grade 14-gauge steel and finished in gray enamel. The faceplate will be constructed of heavy-duty 14-gauge steel and feature universal knockout chevrons and the red letters shall not be less than 6” (150 mm) in height with a 3/4” (19 mm) stroke. The sign shall include a LED lamp with ALINGAP LEDs and shall consume less than 5 watts in either AC or battery mode. The equipment shall be suitable for Class ___ Division ___ Group ____.
The exit sign shall be CSA-C860-07 approved.
The equipment shall be the Lumacell Model - _____.

Dimensions

SMALL CABINET



LARGE CABINET



Before ordering, identify the environment of your application: Class___, Division___, Group___. Refer to the following chart for the Severity Code to use in your catalogue number:_____ .

Environment	Severity Code
Cl. I, Div. 1, Gr. A, B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G Cl. III, Div. 1 & 2	S4

The temperature code of complete equipament is given by the type of emergency head or Exit Sign installed. For temperature information, please look at the table below:

Temperature Codes for LERE-XP Series Exit Signs (40°C ambient)				
Severity Code	S1	S2	S3	S4
Temperature Code	T6	T6	T3C	T3C (EGF)
CSA/UL rating	Max 85°C	Max 85°C	Max 160°C	Max 160°C

Ordering Information

EXAMPLE:

RG	6	36	X		A1	12W	S3		TD
Series	**D.C. Voltage**	**Capacity/ Cabinet Size**	**Housing**	**Faces**	**Head Style**	**Lamps**	**Severity Code**	**A.C. Voltage**	**Options**
RG	**6** = 6 volts	**36** = 36 watts [S]* **72** = 72 watts [S]* **108** = 108 watts [L]*	**X** = hazardous location	**Blank** = no exit sign **RE1** = single face exit sign C860, L.E.D. **RE2** = double face exit sign C860, L.E.D.	**-0** = no heads **A1** = single remote, 1 lamp **A2** = single remote, 2 lamps **A3** = double remote, 1 lamp	**12W** = halogen, 6V, 12V - 12 watts, quartz bi-pin **20W** = halogen, 12V, 24V - 20 watts, quartz bi-pin Note: for other lamp options, please contact factory.	**S1** = see chart **S2** = see chart **S3** = see chart **S4** = see chart	**Blank** = 120Vac **ZC** = 277Vac input **ZD** = 347Vac input	**Blank** = no options **TD** = time delay **TP** = transfer panel
	12 = 12 volts	**72** = 72 watts [S]* **144** = 144 watts [L]* **200** = 200 watts [L]*							
	24 = 24 volts	**144** = 144 watts [L]* **288** = 288 watts [L]* * Cabinet size is not part of the ordering information. Housing							

LUMACELL

3LERHZ Series
Combination Unit for hazardous locations Location

The 3LERHZ Series of combination units (unit equipment and exit sign) are designed specifically for installation in hazardous locations and other high-abuse, industrial environment. Extremely resistant to water, high impacts, vibrations and variations in temperature, the 3LERHZ Series is ideally suited for areas with the risk flammable gases, vapors or liquids that can create an explosive atmosphere. Equipped with long-life and efficient light sources (ALINGAP LEDs, MR16 halogen lamps) the equipment offers impressive illumination performance on the path of egress.

Features

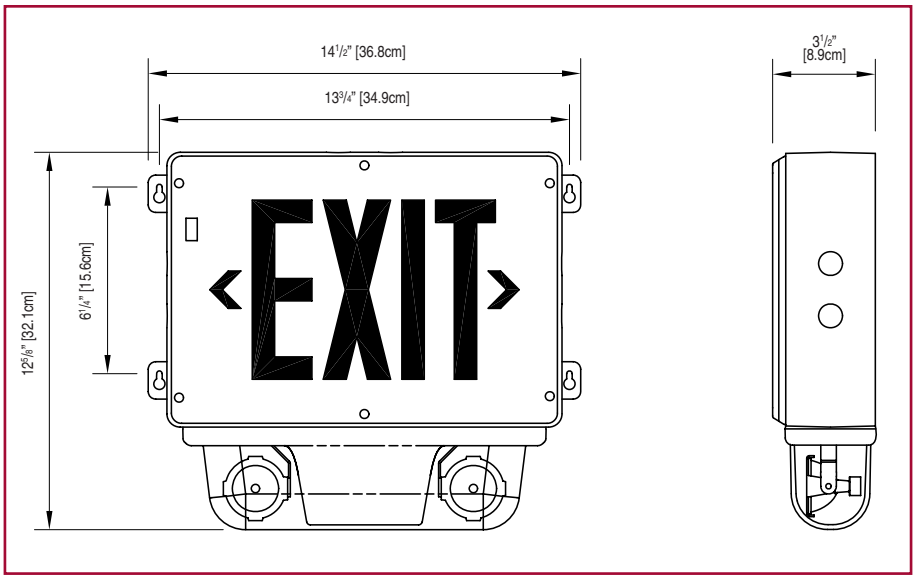
- **Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M19811, Class I, Zone 2, Groups IIC, IIB and IIA**
- **Certified temperature Codes for several types of emergency lamps**
- **Certified CSA C22.2 No141**
- **Certified CSA C860-07**
- **Polymeric frame, with built-in gasket to prevent water infiltration**
- **Heavy-duty 1/8-inch thick aluminum back plate with key-holes for secure wall-mount installation**
- **Sealed faceplate of heavy-duty, vandal-resistant polycarbonate**
- **Exit sign module illuminated by long-life, energy-efficient ALINGAP red LEDs**
- **Two MR16 halogen lamps, shielded by a cast aluminum housing and a polycarbonate cover**
- **Sealed, maintenance-free, Lead-Calcium or Nickel-Cadmium batteries**
- **Remote load capacity**
- **Comes standard with self-test / self-diagnostic functions**
- **Comes standard with industrial-grade, die-cast Aluminum electrical box**
- **½-inch electrical conduit entry on both sides and at the top**

Typical Specification

Supply and install Lumacell 3LERHZ Series combination of unit equipment and LED exit sign. Designed specifically for hostile environments, the equipment frame shall be of industrial grade polymeric material with gaskets around both sides of the frame contour. The back plate shall be made of 1/8-inch thick aluminum sheet and shall include knock-outs for installation on an electrical box and four keyholes for alternative installation on a wall surface. The faceplate shall be constructed of heavy-duty vandal-resistant polycarbonate and feature a uniformly illuminated legend. The light source shall be light emitting diodes (LED). Red LED technology shall be ALINGAP. An LED-sensitive diffuser shall be mounted behind the legend to provide the 6" high by 3/4" stroke letters with even illumination. When specified, the equipment shall have attached a lower compartment containing two emergency lights with adjustable swivels and long-life MR-16 halogen lamps of ___ V and ___ W. The lamps shall be shielded by cast aluminum housing and protected by a shock-absorbent, transparent polycarbonate cover.

The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D. The standard AC input voltage shall be: 120/347Vac. The equipment shall be equipped with a magnetic test switch located behind the face plate and two LED pilot lights: AC-on and "Service required". The unit shall include self-testing / self-diagnostic functions monitored by a micro-controller and shall automatically self test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. The "Service required" LED shall light when a fault is detected. A four-LED diagnostic display located inside the equipment shall identify the source of the failure (battery, charger circuitry, or lamp load). The exit sign module shall be CSA-C860-07 approved. The combination unit shall be Lumacell Model – _____.

Dimensions



Power Consumption and Unit Rating

Model	AC Specs		Wattage Capacity				
			30 min.	1 hr.	1.5 hrs.	2 hrs.	4 hrs.
3LERHZ	120/347 Vac	0.15 / 0.06 Amp	36	21	15	12	-
3LERHZN	120/347 Vac	0.15 / 0.06 Amp	36	30	20	15	-
5LERHZN	120/347 Vac	0.30 / 0.10 Amp	60	40	30	20	10

Temperature Codes

Lamp Rating	Temperature Code	Max. Temperature	Replacement part #
6V 10W	T3C	160 °C	580.0079
12V 12W	T3A	180 °C	580.0080
12V 20W	T2D	215 °C	580.0068

Note: Use qualified replacement lamps to avoid risk of over-heating

Ordering Information

EXAMPLE:

3LERHZ	2	MJ	GG			AT
Series	**# of Heads**	**Lamp/Wattage**	**Housing/Face Color**	**Voltage**	**Letters Color**	**Options**
3LERHZ= 6V - 36W, lead acid **3LERHZN** = 6V - 36W, NiCad **5LERHZ** = 12V - 60W NiCad	**Blank** = no heads **2** = 2 heads	**MJ** = MR16, 6V - 10W **MK** = MR16, 12V - 12W **MW** = MR16 12v- 20 w IR	**GG** = grey/grey	**Blank** = 120/347vac **ZC** = 120/277vac	**Blank** = red letters **G** = green letters	**AT** = autotest audible **ATN** = auto Test, non-audible **NEX** = nexus system interface

LUMACELL

CATALOG

Remotes

LUMACELL

MQM-HZ Series

HAZARDOUS LOCATION Compliant Remote Fixture
Class I, Division 2, Groups A, B, C and D
Class I, Zone 2, Groups IIC, IIB and IIA

The MQM-HZ Series of remote fixtures has been designed specifically for installation in hazardous locations and other and high-abuse, industrial environments. Extremely resistant to water, high impacts, vibrations and variations in temperature, the MQM-HZ Series is suited for areas with the risk of presence of flammable gases, vapors or liquids able to create an explosive gas atmosphere. Besides their superior endurance, the fixtures have outstanding lighting performance, with a center-to-center egress illumination up to 70-foot long and 3-foot wide.

Features

- **Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No. 9 and No.137-M1981, Class I, Zone 2, Groups IIC, IIB and IIA**
- **Temperature Codes: T3B (10W and 12W MR16 lamps) and T2C (20W MR16 lamps), as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981)**
- **Extreme operational temperature range: -40ºC to +40ºC.**
- **Choice of single- or double-lamp models**
- **High-efficacy MR16 halogen lamps of 10W, 12W and 20W (see specification table)**
- **Input voltage: 6V, 12V, 24V or 120V**
- **Fully gasketed die-cast aluminum back plate**
- **Clear polycarbonate cover, UV and impact resistant**
- **Easy installation on a 4-inch octagonal box (included in the package)**
- **Comes standard with tamper-proof screws and bit**

Typical Specification

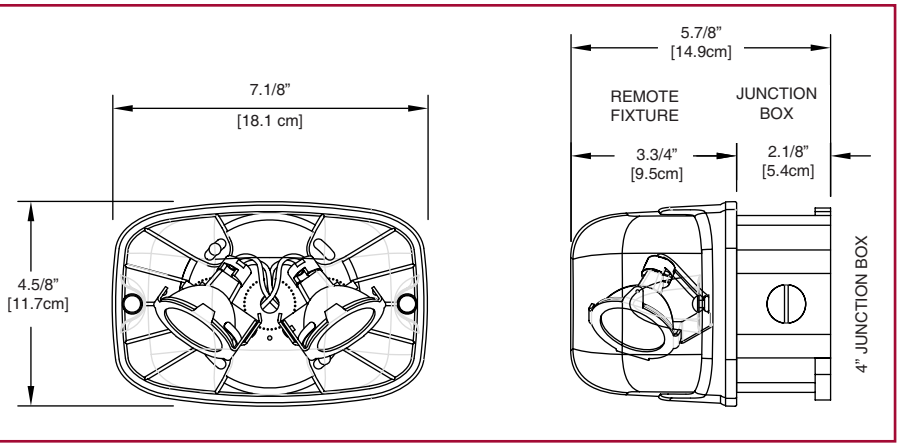
Supply and install Lumacell MQM-HZ Series Model - _____ remote emergency lighting fixture. The fixture shall have a single- or double-lamp configuration (as specified) and shall include a fully gasketed die-cast aluminum back plate and a clear heavy-duty UV resistant polycarbonate cover. The fixture shall come standard with a 4-inch octagonal box, stainless steel tamper-proof screws and dedicated screwdriver bit.

The fixture shall be certified for use in hazardous locations Class I, Division 2, Groups A, B, C and D and shall be listed to CSA C22.2 No. 9 and CSA C22.2 No.137-M1981. The fixture shall be rated with a temperature code for the selected lamps as in the table below.
Each lamp in the fixture shall be able to be oriented without tools and should be equipped with high efficiency MR16 halogen lamp(s) of ___ Volts ___ Watts. The remote fixtures will provide illumination in emergency operation and shall receive their DC power from the Lumacell battery unit Model- _____ .
The fixture shall be Lumacell Model – _____.

Power Consumption

Lamp type	Input Voltage	Power (each of 2 lamps)	Temperature code
MR16	6 Volts	10 Watts	T3B (Max 165ºC)
MR16	12, 24 Volts	12 Watts	T3B (Max 165ºC)
MR16	12, 24, 120 Volts	20 Watts	T2C (Max 230ºC)

Dimensions



Ordering information

EXAMPLE:

MQM1HZ	12V20WH	SG
Series	**Lamp/Wattage**	**Colour**
MQM1HZ = single lamp **MQM2HZ** = double lamp	**6V10W** = 6V - 10 Watts, MR16 **12V12W** = 12V - 12 Watts, MR16 **12V20WH** = 12V - 20 Watts, MR16-High output **24V12W** = 24V - 12 Watts, MR16 **24V20W** = 24V - 20 Watts, MR16 **120V20W** = 120V - 20 Watts, GU10	**SG** = grey

NEMA-4X

- Choice of single or double head models
- Fully gasketed cast aluminum back plate with clear UV resistant polycarbonate cover
- Choice of MR16 halogen lamps up to 24V, 20W or high-efficiency, 5-Watt, MR16 LED lamps

Remote Fixture
NEMA-4X Certified Battery Unit

Features

- **Delivers unsurpassed pathway illumination – 70 feet, center-to-center (with 12V 20W lamp)**
- **Fully gasketed cast aluminum back plate with clear polycarbonate cover – NEMA-4X Certified**
- **UV and impact resistant cover**
- **Choice of three colours: factory white, black or grey**
- **Choice of single or double head models**
- **Available in 6, 12 and 24 Volt models with various wattages**
- **High efficiency MR16 lamps up to 20W**
- **Easy installation on four-inch octagonal box**
- **Easy lamp replacement**
- **Comes standard with tamper-proof screws and bit**
- **NSF Certified for food processing plants**
- **CSA Certified to C22.2 No. 9**

Typical Specification

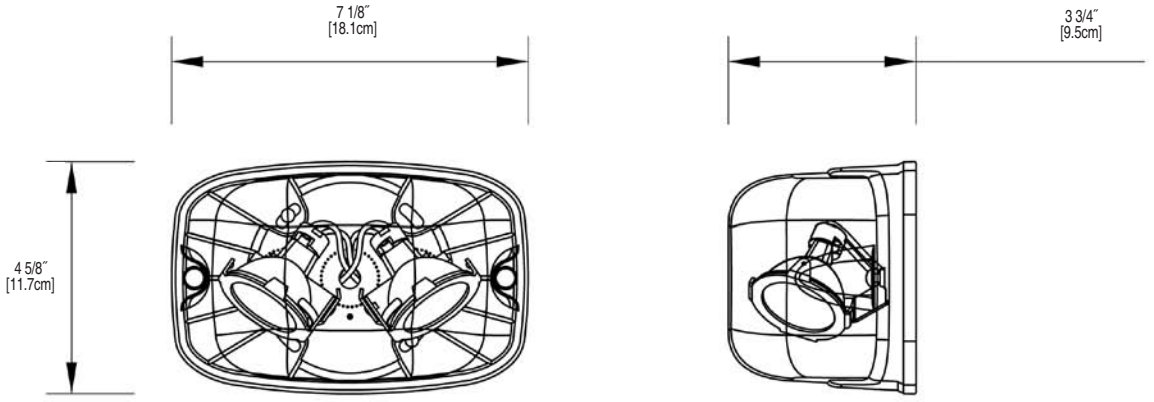
Supply and install **Lumacell MQM NX** Series Model - _____ remote emergency lighting fixtures. These remote fixtures will consist of either single or double lamp configurations according to the design. These fixtures shall be fully gasketed with a die cast aluminum back plate and a clear heavy-duty UV resistant polycarbonate light cover. Units shall be NEMA-4X certified and specifically designed for high abuse areas, wet and cold weather locations. The standard unit will come with stainless steel tamper-proof screws and bit.

The remote fixture shall be certified to CSA C22.2 No. 9 and NSF Certified for use in food processing plants.

The head(s) shall be fully adjustable without tools and should be equipped with high efficiency MR16 halogen lamp(s) of ___ volts ___ watts.

The remote fixtures will provide illumination in emergency operation and receive their DC power from Lumacell battery unit Model- _____ .

Dimensions



Ordering Information

EXAMPLE:

MQM1NX	6V6W	
Series	**Lamp/Wattage**	**Colour**
MQM1NX = single, NEMA-4X **MQM2NX =** double, NEMA-4X	**6V6W** = 6V-6 watts, MR16 **6V10W** = 6V-10 watts, MR16 **12V12W** = 12V-12 watts, MR16 **12V20W** = 12V-20 watts, MR16 **24V20W** = 24V-20 watts, MR16 **24V12W** = 24V-20 watts, MR16 **L** = 12V-5 watts, LED	**Blank** = factory white **BK** = black **SG** = grey

LUMACELL

Saf-T-Ray Series
Wall Mount Remote Head

Robust, vandal resistant, versatile wall mount fixture

Features

- **Compact wall sconce unit for indoor and outdoor use**
- **High impact resistant polycarbonate diffuser**
- **Die-cast aluminum housing**
- **Available in factory white, black or dark grey finish**
- **Adjustabe lamps**
- **Vandal resistant option**

The Saf-T-Ray™ wall sconce unit was designed and engineered with durability and sophistication in mind. Its low-profile aesthetic design will provide an attractive alternative to the typical two-headed standard emergency lighting unit. The Saf-T-Ray™ is suitable for outdoor and indoor use, in a wide range of applications where aesthetics cannot be compromised.

Typical Specification

Wall mount unit shall be gasketed die-cast aluminum housing, impact resistant polycarbonate diffuser.

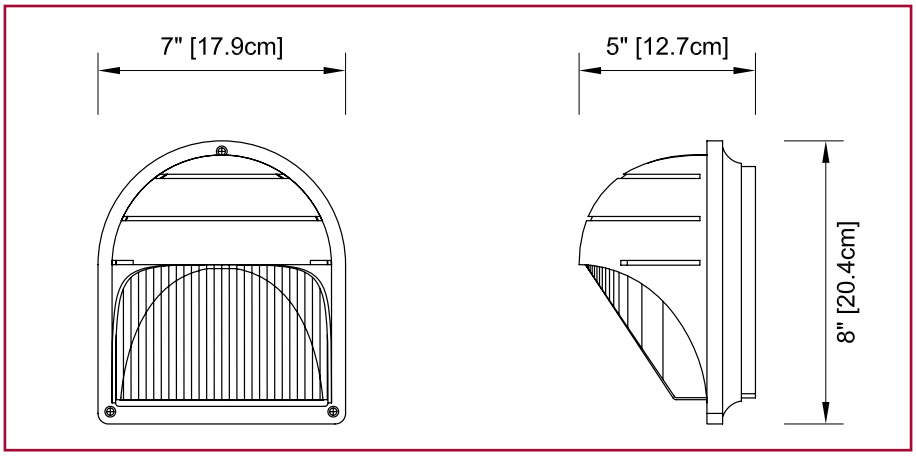
To be supplied in factory white, black or dark grey. The lamps shall be in adjustable for aisle or area distribution.

Fixture shall be supplied with gasket and shall be

suitable for installation on any four inch octogonal box.

Lamp shall be model ____, ____ watts Model Saf-T-Ray by Lumacell.

Dimensions



Ordering information

EXAMPLE:

SAF	M	12V12W		
Series	**Lamp Type**	**Voltage/Wattage**	**Colour**	**Options**
SAF = exterior remote	**Blank** = (1) med. base socket only (max. 60W), no lamp included, for non-emergency **M** = MR16	**Blank** = no lamp **6V10W** = (2) 6V - 10 watts, MR16 **12V12W** = (2) 12V - 12 watts, MR16 **12V20W** = (2) 12V - 20 watts, MR16 **24V12W** = (2) 24V - 12 watts, MR16 **24V20W** = (2) 24V - 20 watts, MR16	**Blank** = factory white **BK** = black **DG** = dark grey	**VR** = vandal resistant screws

Hazardous Location Remote Lighting Fixtures

CSA certified for use in hazardous locations

Class I, Zone 1, Groups IIC, IIB and IIA for Severity Code 1 products

Class I, Zone 1, Groups IIB and IIA for Severity Code 2 products

Class I, Zone 2, Groups IIC, IIB and IIA for Severity Code 3 products

The RS10XP Series of remote emergency lighting heads is designed to cover emergency lighting applications for the entire spectrum of hazardous locations, where inflammable gases, vapors, liquids, dust particles or fabrics, tissues are permanently present or are likely to exist. The RS10XP remote heads can be connected to the RG-X Series of battery equipment or to the Lumacell DC system.

Features

- **CSA Certified for use in hazardous locations:**
  - **Class I, Divisions 1 and 2, Groups A, B, C, D**
  - **Class II, Divisions 1 and 2, Groups E, F, G**
  - **Class III, Divisions 1 and 2**
- **Die-cast aluminum body with gray epoxy powder coat finish**
- **Clear, impact and heat resistant prismatic glass globe**
- **Available in 6, 12 and 24V**
- **Available with single-lamp or twin-lamp combination**
- **New, easy-to-build catalogue number based on the Lumacell Severity Codes**

Typical Specification

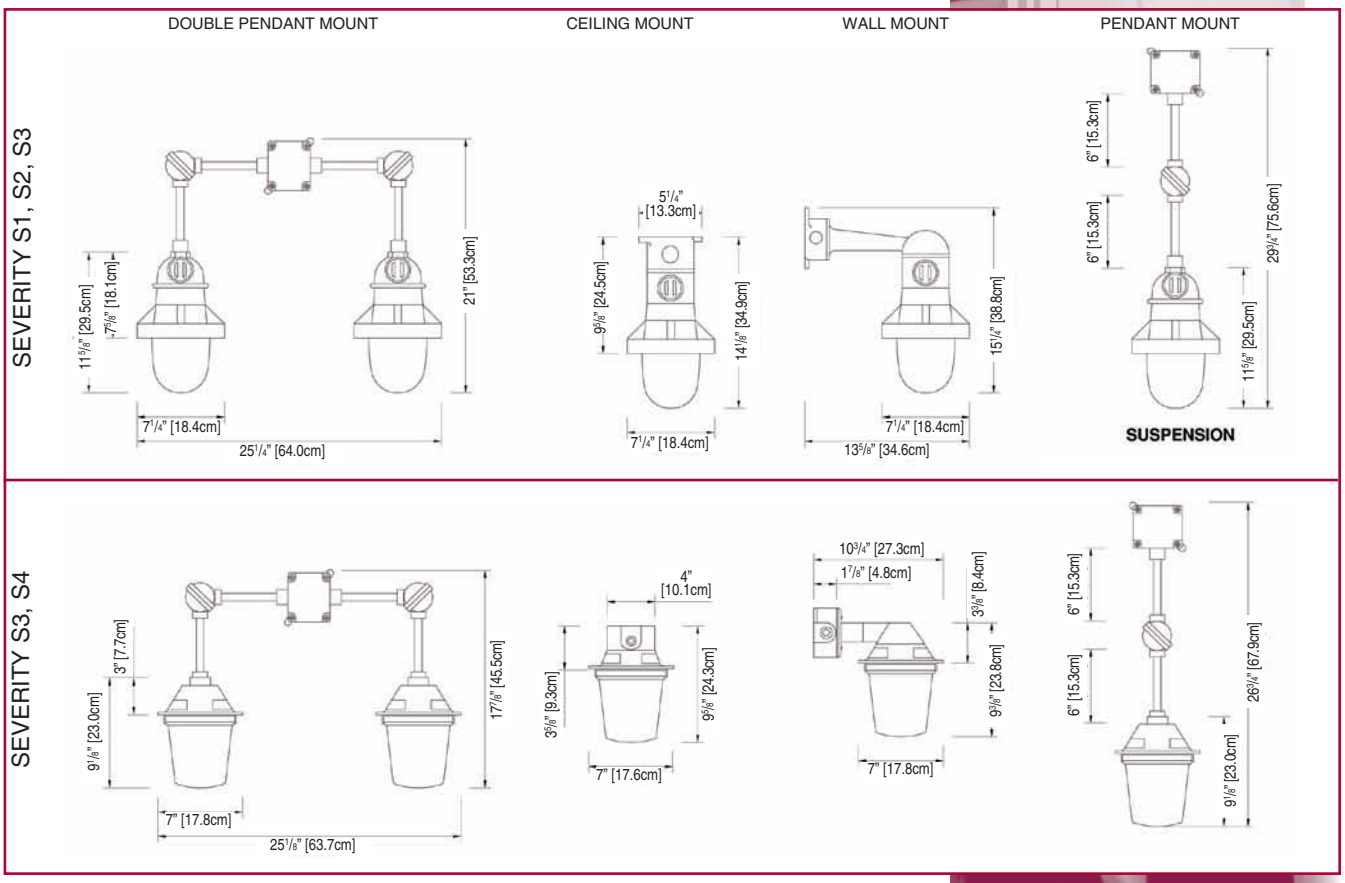
Supply and install the Lumacell RS10XP Series of hazardous location remote heads. The head housing will be die cast aluminum with gray epoxy powder coat finish. The lens shall be a clear, impact and heat resistant prismatic glass globe. The head shall be factory sealed. External seals shall not be required.

The remote head shall come complete with a ____ mounting connection and include ____ lamp(s) rated ____ volts ____ watts.

The remote head shall be suitable for Class ____, Division ____, Group ____.

The remote head shall be Lumacell Model - _____.

Dimensions



Before ordering, identify the environment of your application: Class___, Division___, Group___. Refer to the following chart for the Severity Code to use in your catalogue number:

Environment	Severity Code
Cl. I, Div. 1, Gr. A, B	S1
Cl. I, Div. 1, Gr. C, D	S2
Cl. I, Div. 2, Gr. A, B, C, D	S3
Cl. II, Div. 1 & 2, Gr. E, F, G Cl. III, Div. 1 & 2	S4

Ordering Information

EXAMPLE:

RS10XP	6V	12W	S3	P
Series	**Voltage**	**Lamp Wattage/Type**	**Severity Code**	**Mounting**
RS10XP = single remote 1 lamp **RS20XP** = single remote 2 lamps* **RS20FXP** = double remote 1 lamp* *Pendant mount only	**6V** = 6 volts **12V** = 12 volts **24V** = 24 volts	**12W** = halogen, 6V, 12V-12 watts, quartz bi-pin **20W** = halogen,12V, 24V- 20 watts, quartz bi-pin *Note: For other lamp options, please contact factory.*	**S1** = see chart **S2** = see chart **S3** = see chart **S4** = see chart	**C** = ceiling mount **P** = pendant mount **W** = wall mount

For additional information, please look at the table below:

Certification Guide for Remote Lighting Fixtures (40°C ambient)				
Severity Code	S1	S2	S3	S4
Temperature Code	T4A	T6	T1	T3B (EGF)
CSA/UL rating	Max 120°C	Max 85°C	Max 450°C	Max 165°C

RS-WP Series

- PAR 36, surface-mounted industrial remote fixtures
- Available in single, double or triple head fixtures
- Durable thermoplastic construction suitable for industrial or high abuse areas
- Available in black (standard) and factory white
- Tool-less adjustment and aiming of lamp heads

RS-WPRB Series

- Sealed beam, PAR 36, surface-mounted, rubber coated industrial remote fixture
- For use in high pressure hose down areas
- Available only in black

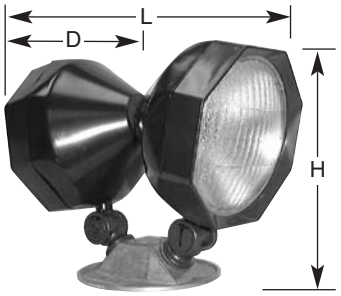
MT-W4T Series

- NEMA 4X listed, surface-mounted, square industrial remote fixture
- Available with tungsten or quartz lamps in single or double head configurations
- Gray fiberglass base and clear polycarbonate lens

Remote Emergency Lighting Fixture

RS-WP Series
Dimensions

RS10WP:
4 5/8" (11.8 cm) L x 7 3/8" (18.6 cm) H x 4 1/8" (10.5 cm) D
RS20WP:
12 5/8" (32.1 cm) L x 5 5/8" (14.3 cm) H x 4 1/8" (10.5 cm) D
Canopy:
4 1/4" (10.7 cm) Diameter



Ordering Information

EXAMPLE:

RS	10	QWP12V12W		
Series	**# of Heads**	**Lamp Wattage/Type**	**Colour**	**Options**
RS = par 36	**10** = single head **20** = double head **30T** = triple head	**WP6V9W** = 6V - 9 watts, tungsten, wedge base **WP6V__W** = 6V - 18 or 25 watts, tungsten, D.C.B **WP12V__ W** = 12V - 9 or 18 watts, tungsten, wedge base **WP12V25W** = 12V - 25 watts, tungsten, D.C.B. **WP24V__ W** = 24V - 9 or 18 watts, tungsten, wedge base **WP24V25W** = 24V - 25 watts, tungsten, D.C.B. **QWP6V__ W** = 6V - 8, 12, or 20 watts, halogen, quartz bi-pin **QWP12V__ W** = 12V - 8, 12, 20 or 55 watts, halogen, quartz bi-pin **QWP24V__ W** = 24V - 20 or 70 watts, halogen, quartz bi-pin **SBWP6V__ W** = 6V - 9, 12, 18 or 25 watts, tungsten, sealed beam **SBWP12V__ W** = 12V - 12, 18 or 25 watts, tungsten, sealed beam **QSBWP6V__ W** = 6V - 8, 12 or 20 watts, halogen, quartz sealed beam **QSBWP12V__ W** = 12V - 8, 12 or 37 watts halogen, quatrz sealed beam **WP32V__ W** = 32V - 18 or 25 watts, tungsten, D.C.B. **WP120V__ W** = 120V - 10, 15, 30 or 50 watts, tungsten, D.C.B. **NOTE: "__" = insert wattage required*	**Blank** = black **WH** = factory white	**TC** = teflon coated lens

RS-WPRB Series

Dimensions

RS10-WPRB:
4⅝" (11.8 cm) L x 7⅜" (18.6 cm) H x 4⅛" (10.5 cm) D
RS20-WPRB:
12⅝" (32.1 cm) L x 5⅝" (14.3 cm) H x 4⅛" (10.5 cm) D
Canopy:
4¼" (10.7 cm) Diameter

Ordering Information

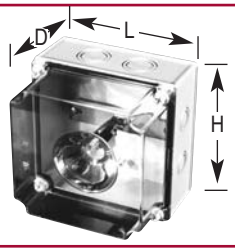
EXAMPLE:

RS	10	SBWPRB6V9W	
Series	**# of Heads**	**Lamp Wattage/Type**	**Options**
RS = par 36	**10** = single head **20** = double head **30T** = triple head	**SBWPRB6V __ W** = 6V - 9, 12, 18 or 25 watts, tungsten, sealed beam **SBWPRB12V __ W** = 12V - 12, 18 or 25 watts, tungsten, sealed beam **QSBWPRB6V __ W** = 6V - 8, 12 or 20 watts, halogen, quartz sealed beam **QSBWPRB12V __ W** = 12V - 8, 12 or 37 watts, halogen, quatrz sealed beam **NOTE: "__" = insert wattage required*	**TC** = teflon coated lens

MT-W4T Series

Dimensions

MT1-W4T:
5.0" (12.8 cm) L x 5.0" (12.8 cm) H x 4.0" (10.2 cm) D
MT2-W4T:
7.0" (17.8 cm) L x 5.0" (12.8 cm) H x 4.0" (10.2 cm) D



Ordering Information

EXAMPLE:

MQ	1W4T	12V12W
Series	**# of Heads**	**Lamp Wattage/Type**
MT = tungsten **MQ** = halogen	**1W4T** = single head **2W4T** = double head	**6V9W** = 6V - 9 watts, tungsten, wedge base **12V __ W** = 12V - 9 or 18 watts, tungsten, wedge base **24V __ W** = 24V - 9 or 18 watts, tungsten, wedge base **6V __ W** = 6V - 8, 12, or 20 watts, halogen, quartz bi-pin **12V __ W** = 12V - 8, 12, or 20 watts, halogen, quartz bi-pin **24V20W** = 24V - 20 watts, halogen, quartz bi-pin **NOTE: "__" = insert wattage required*

RS10/RS20/RS30T

- PAR36, surface-mounted, large remote fixtures
- Single, double or triple head
- Positive aim swivel
- Available in factory white (standard) and black

RSQB/RSQBD/RSQB2

- Cubic, vandal-resistant surface-mounted fixture
- Single, double or twin cube with center body
- Available in factory white (standard) and black with frosted polycarbonate cube

Remote Emergency Lighting Fixtures

RS10/RS20/RS30T Series

Dimensions

RS10: 4.5” (11.4 cm) L x 7.25” (18.4 cm) H x 3.5” (8.9 cm) D
Canopy: 5.0” (12.7 cm) Diameter

RS20: 4.5” (11.4 cm) L x 7.25” (18.4 cm) H x 11.75” (29.9 cm) D
Canopy: 5” (12.7 cm) Diameter

RS30T: 14.0” (35.6 cm) L x 7.25” (18.4 cm) H x 14.0” (35.6 cm) D
Canopy: 9.5” (24.1 cm) Diameter

Ordering Information

EXAMPLE:

RS	10	Q12V12W		
Series	**# of Heads**	**Lamp Wattage/Type**	**Colour**	**Options**
RS = par 36	**10** = single head **20** = double head **30T** = triple head	**6V9W** = 6V - 9 watts, tungsten, wedge base **6V __W** = 6V - 18 or 25 watts, tungsten, D.C.B **12V __ W** = 12V - 9 or 18 watts, tungsten, wedge base **12V25W** = 12V - 25 watts, tungsten, D.C.B. **24V __ W** = 24V - 9 or 18 watts, tungsten, wedge base **24V25W** = 24V - 25 watts, tungsten, D.C.B. **Q6V __ W** = 6V - 8, 12, or 20 watts, halogen, quartz bi-pin **Q12V __ W** = 12V - 8, 12, 20 or 55 watts, halogen, quartz bi-pin **Q24V __ W** = 24V - 20 or 70 watts, halogen, quartz bi-pin **SB6V __ W** = 6V - 9, 12, 18 or 25 watts, tungsten, sealed beam **SB12V __ W** = 12V - 12, 18 or 25 watts, tungsten, sealed beam **QSB6V __ W** = 6V - 8, 12 or 20 watts, halogen, quartz sealed beam **QSB12V __ W** = 12V - 8, 12 or 37 watts, halogen, quatrz sealed beam **32V __ W** = 32V - 18 or 25 watts, tungsten, D.C.B. **120V __ W** = 120V - 10, 15, 30 or 50 watts,tungsten, D.C.B. **NOTE: "__" = insert wattage required*	**Blank** = factory white **BK** = black	**TC** = teflon coated lens

RSQB/RSQBD/RSQB2 Series

Dimensions

RSQB: 4 3/4" (12.1 cm) L x 4 7/8" (12.4 cm) H x 4 3/4" (12.1 cm) D

RSQBD: 9 1/2" (24.1 cm) L x 5 7/8" (15.0 cm) H x 4 3/4" (12.1 cm) D

RSQB2: 14 3/4" (37.4 cm) L x 4 3/4" (11.9 cm) H x 4 1/2" (11.3 cm) D

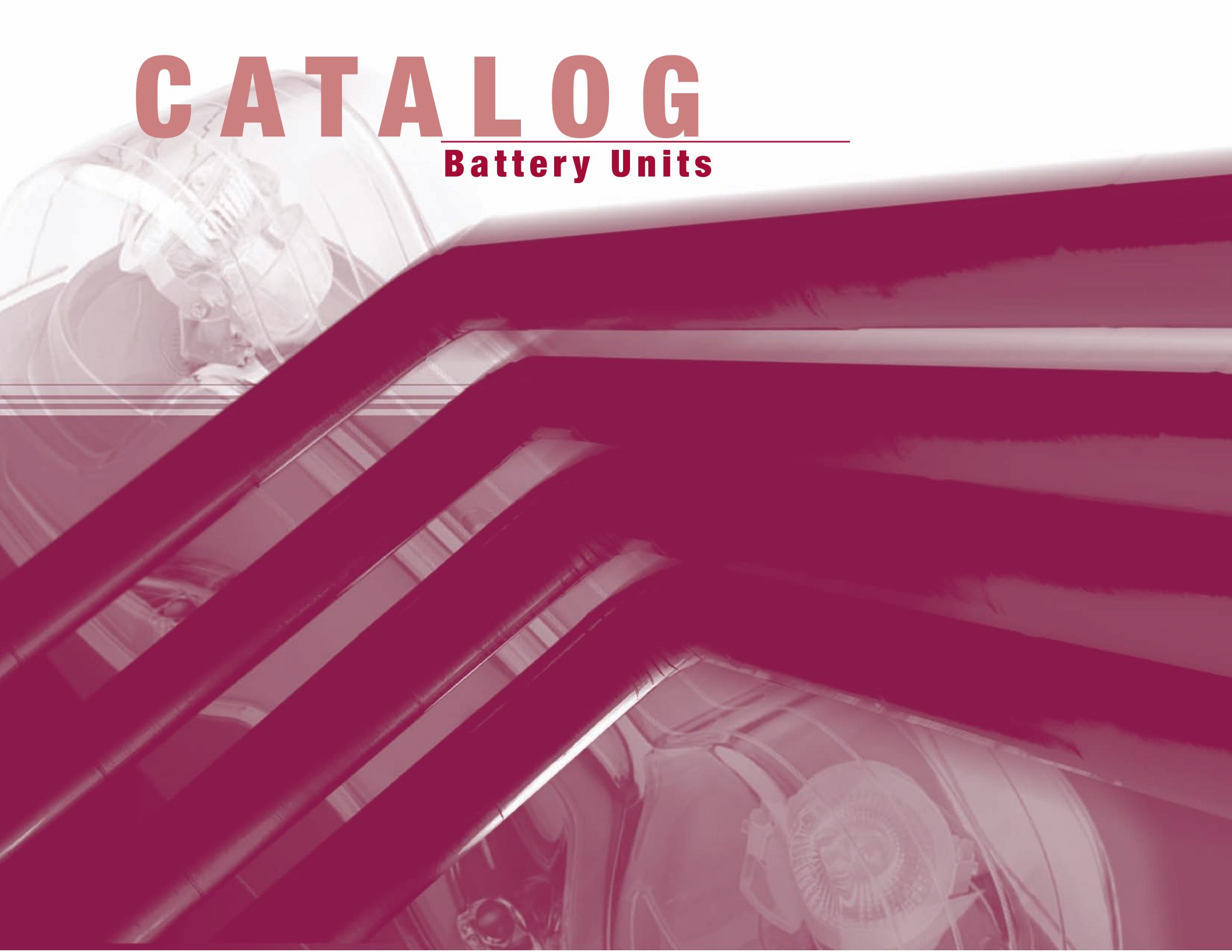
Ordering Information

EXAMPLE:

RSQB		6V8W	
Series	**Special Options**	**Lamp Wattage/Type**	**Colour**
RSQB = single cube **RSQBD** = double cube **RSQB2** = twin cube	**Blank** = no options **T** = tamper proof screws	**6V9W** = 6V - 9 watts, wedge base **12V9W** = 12V - 9 watts, wedge base **12V18W** = 12V - 18 watts, wedge base **24V9W** = 24V - 9 watts, wedge base **6V8W** = 6V - 8 watts, quartz bi-pin **6V12W** = 6V - 12 watts, quartz bi-pin **12V8W** = 12V - 8 watts, quatrz bi-pin **12V12W** = 12V - 12 watts, quatrz bi-pin **24V20W** = 24V - 20 watts, quartz bi-pin **M6V6W** = 6V - 6 watts, MR16 **M6V10W** = 6V - 10 watts, MR16 **M12V12W** = 12V - 12 watts, MR16 **M12V20W** = 12V - 20 watts, MR16 **M12V35W** = 12V - 35 watts, MR16 **M12V50W** = 12V - 50 watts, MR16 **M24V20W** = 24V - 20 watt, MR16 **M24V35W** = 24V - 35 watts, MR16 **M24V50W** = 24V - 50 watts, MR16	**Blank** = factory white **BK** = black

CATALOG

Battery Units



LUMACELL

RGS-DT Series

NEMA-12 Classified, 6, 12 and 24 Volts Battery Units Harsh environment emergency lighting units-steel, thermoplastic or fiberglass cabinets

The RGS-DT Series battery units are specifically designed for use in industrial facilities where equipment is exposed to dust, water, oil or corrosive substances. NEMA-12 classified to protect circuitry from harmful dust or liquid sprays, sealed and gasketed unit cabinets are available in steel, thermoplastic or fiberglass in a variety of sizes.

Features

- **Solid-state pulse-type charger – current-limited, temperature-compensated, short-circuit proof and reverse-polarity protected.**
- **Unit comes standard with electronic lockout and brownout circuits**
- **Sealed dust-proof transfer relay, test switch and LED indicator lights**
- **Long-life, maintenance-free sealed lead acid battery**
- **Wide range of lampheads available – consult Ordering Information for complete list**
- **Standard 120/347Vac input voltage with line cord kit**
- **NEXUS® compatible (for more information on NEXUS®, please consult the factory)**
- **CSA C22.2 No. 141 certified**

Typical Specification

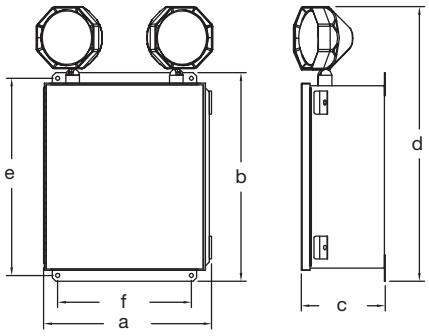
Supply and install a complete emergency lighting system as described herein and shown on the drawings.
The Lumacell Smart Diagnostic Micro controller board shall supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120V or 347V, 60 Hz and be CSA listed. The unit shall have an output of _____ volts. The charger shall be fully computer tested and its charge voltage factory set to ± 1% tolerance. Chargers with field-adjusted potentiometers are not acceptable. A pulse-type charger shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off. Periodically the charger shall provide a pulse of energy to keep the battery topped off. The Pulse charge shall be current limited and precisely regulated by a micro-processing circuit, which samples the battery in relation to its temperature, state or charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected. The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the battery form the fused output circuit at the end of discharge. The unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be capable of full recharge in compliance with CSA specifications. The unit shall be furnished with sealed dust tight relay, a test switch and diagnostic LED indicator lights to continuously monitor the status of the unit: Battery Failure, Battery Disconnected, Charger Failure, Lamp Failure, Service Alarm, AC “ON”, Charger High Rate.

The unit shall be Lumacell Model - _____ .

EXAMPLE: RGS 36 DT 2 RB9W AT / RG12S 72 DTF 2 RBQ8W AT / RG24S 350 DT FG 2 LHQ20W AT

LUMACELL

Dimensions



Cabinet	Dimensions					
	a	b	c	d	e	f
Thermoplastic Cabinet - size 1	11⅝" [29.5 cm]	13" [32.9 cm]	5" [12.7 cm]	18¼" [46.4 cm]	13¾" [35.0 cm]	8" [20.3 cm]
Fiberglass Cabinet - size 2	11⅜" [29.0 cm]	13½" [34.4 cm]	5¼" [13.2 cm]	18⅞" [47.9 cm]	13½" [34.3 cm]	8⅛" [20.5 cm]
Fiberglass Cabinet - size 3	13½" [34.3 cm]	15½" [39.4 cm]	6¼" [15.9 cm]	20⅞" [52.9 cm]	-	-
Fiberglass Cabinet - size 4	17⅝" [44.7 cm]	19⅝" [49.8 cm]	8⅞" [22.4 cm]	25" [63.5 cm]	-	-
Steel Cabinet - size 5	10¾" [27.4 cm]	13 7/16" [34.1 cm]	5¼" [13.4 cm]	18½" [47.1 cm]	12⅝" [32.0 cm]	9" [22.7 cm]
Steel Cabinet - size 6	12½" [31.9 cm]	15⅝" [39.6 cm]	6¼" [15.9 cm]	20½" [52.1 cm]	14¾" [17.5 cm]	10" [25.4 cm]

Ordering Information

EXAMPLES:

RGS RG12S RG24S	36 72 350	DT DTF DTFG	2 2 2	RB9W RBQ8W LHQ20W		AT AT AT
Series	**Capacity/ Cabinet Size**	**Housing**	**# of Heads**	**Head Style/ Lamp Wattage**	**A.C. Voltage**	**Options**
RGS = 6 volts	**36** = 36 watts [1, 2, 5]* **72** = 72 watts [1, 2, 5]* **108** = 108 watts [1, 2, 5]* **180** = 180 watts [1, 2, 5]*	**DT** = steel **DTF** = thermoplastic **DTFG** = fiberglass	**Blank** = no head **1** = one head **2** = two heads	**LH9W** = large tungsten , 6V, 12V, 24V - 9 watts, wedge base **LH18W** = large tungsten, 12V, 24V - 18 watts, wedge base **LH25W** = large tungsten, 6V, 12V, 24V - 25 watts, DCB **LHQ8W** = large halogen, 6V, 12V - 8 watts, quartz bi-pin **LHQ12W** = large halogen, 6V, 12V - 12 watts, quartz bi-pin **LHQ20W** = large halogen, 6V, 12V, 24V - 20 watts, quartz bi-pin **LHQ55W** = large halogen, 12V - 55 watts, quartz bi-pin **LHQ70W** = large halogen, 24V - 70 watts, quartz bi-pin **SB9W** = large tungsten, 6V, 12V - 9 watts, sealed beam **SB18W** = large tungsten, 6V, 12V - 18 watts, sealed beam **SB25W** = large tungsten, 6V, 12V, - 25 watts, sealed beam **QSB8W** = large halogen, 6V, 12V - 8 watts, quartz sealed beam **QSB12W** = large halogen, 6V, 12V - 12 watts, quartz sealed beam **QSB20W** = large halogen, 6V - 20 watts, quartz sealed beam **RB9W** = large rubber tungsten, 6V, 12V - 9 watts, sealed beam **RB18W** = large rubber tungsten, 6V, 12V - 18 watts, sealed beam **RB25W** = largerubber tungsten, 6V, 12V, - 25 watts, sealed beam **RBQ8W** = large rubber halogen, 6V, 12V - 8 watts, quartz sealed beam **RBQ12W** = large rubber halogen, 6V, 12V - 12 watts, quartz sealed beam **RBQ20W** = large rubber halogen, 6V - 20 watts, quartz sealed beam	**Blank** = 120/347 Vac input **ZB** = 240Vac input **ZC** = 277Vac input **ZE** = 220Vac, 50hz input	**A** = ammeter **AT** = autotest **CT** = cabtire **DPF6** = 6cct. fuse panel **HTR** = heater & thermostat **LC** = line cord **LD** = lamp disconnect **LTS** = light activated test switch ***NEX** = NEXUS system interface (6+12V only) **RRT** = remote test receiver **TC** = teflon coated lens **TD** = time delay (programmable) **TL** = twist lock plug **TMBB** = AC/DC terminal block **TMBD** = DC terminal block **TMBK** = AC terminal block **V** = voltmeter ** Not all options available with NEXUS. Consult factory.*
RG12S = 12 volts	**36** = 36 watts [1, 2, 5]* **72** = 72 watts [1, 2, 5]* **100** = 100 watts [1, 2, 5]* **144** = 144 watts [1, 2, 5]* **200** = 200 watts [1, 2, 5]* **250** = 250 watts [3, 6]* **360** = 360 watts [3, 6]*					
RG24S = 24 volts	**144** = 144 watts [1, 2, 5]* **288** = 288 watts [1, 2, 5]* **350 =** 350 watts [4]* **432 =** 432 watts [4]* **550 =** 550 watts [4]* **720** = 720 watts [4]* ** Cabinet size is not part of the ordering information.*					

NEMA-4X

- Fully gasketed cast aluminum back plate with clear UV resistant polycarbonate cover
- Long-life, maintenance-free sealed lead acid battery
- Choice of MR16 halogen lamps up to 12V, 20W or high-efficiency, 5-Watt, MR16 LED lamps
- Mounting: wall mount
- Unit capacity: up to 108W
- Suitable for cold weather applications — -40˚C (CW option)

Battery Unit

NEMA-4X Certified Battery Unit

Features

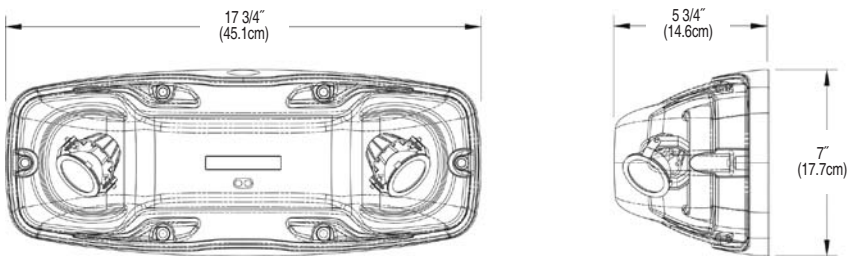
Standard

- Delivers unsurpassed pathway illumination – 70 feet, center-to-center (with 12V 20W lamp)
- Fully gasketed cast aluminum back plate with clear polycarbonate cover – NEMA-4X Certified
- Choice of three colours: factory white, black or silver grey
- Comes standard with non-audible advanced diagnostic charger board, 10 minute time delay and lamp disconnect
- Audible warning and time delay functions can be enabled or disabled during installation
- Micro-controller diagnostic system tests, detects and indicates battery, charger circuitry or MR16 lamp failures
- Non intrusive magnetic test switch
- High efficiency MR16 lamps, up to 20W
- Long-life, maintenance free sealed lead acid battery
- 1/2” rigid conduit entry on top and back
- Can be installed on 4-inch junction boxes
- Comes standard with tamper-proof screws and bit
- Standard 120/347Vac input voltage
- NSF Certified for food processing plants
- CSA C22.2 No. 141 Certified

Optional

- NEXUS® compatible (for more information on NEXUS®, please consult factory)
- Universal bracket (for mounting on poles, I-beams or Superstrut® metal framing)
- Cold weather option (-40ºC)
- Bracket pole-beam-wall mounting

Dimensions



Typical Specification

Supply and install the **Lumacell NEMA-4X Certified RG-NX Series** battery unit.

Specifically designed for high abuse areas, wet locations, and cold weather (CW option -40°C), the housing shall be fully gasketed with a cast aluminum back plate and clear heavyduty UV resistant polycarbonate cover. The heads shall be fully adjustable without tools and the lamps shall be high efficiency halogen MR16. The standard unit shall be equipped with tamper-proof screws and bits.

The Lumacell Advanced Diagnostic Micro-controller charger board shall supply the rated load for a minimum of 30 minutes to 87.5% of the rated battery voltage. The charger incorporates lockout and brownout circuits, and low voltage disconnection. It protects the unit from over-current, short-circuit, and reverse polarity. The unit shall be rated 120/347V, 60Hz. The unit shall have an output of ___ volts.

This unit shall self-test for 1 minute every 30 days, 10 minutes on the 6th month and 30 minutes every 12 months. The unit shall be furnished with a non-intrusive magnetic test switch. A “Service Required” lamp shall be located near the test switch and flash when a fault is detected. A four-LED diagnostic display shall be located inside the equipment and shall identify the source of failure (battery, charger, circuitry, or lamps).

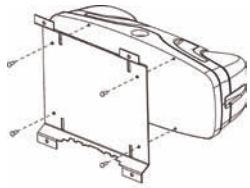
The unit shall be CSA C22.2 No.141. certified. It shall also be NSF Certified for use in food processing plants.

The unit shall be **Lumacell** Model - _____.

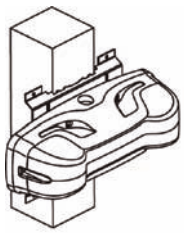
Accessories (order as a separate item)

Additional bit for tamperproof screws	TPB
Universal bracket (for mounting on poles, I-beams or Superstrut® metal framing)	PMK

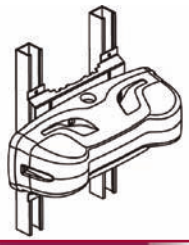
PMK Kit (screws included)



Beam Mounting



Superstrut Mounting



Ordering Information

EXAMPLE:

RGNX	36	2	M6W			
Series	**Capacity**	**# of Heads**	**Lamp/Wattage**	**Colour**	**A.C./ Voltage**	**Options**
RGNX = 6 volts, NEMA-4X **RG12NX** = 12 volts, NEMA-4X	**36** = 6V-36W **72** = 12V-72W **108** = 12V-108W	**2** = 2 heads	**M6W** = mini halogen, 6V-6 watts, MR16 **M10W** = mini halogen, 6V-10 watts, MR16 **M12W** = mini halogen, 12V-12 watts, MR16 **M20W** = mini halogen,12V-20 watts, MR16 **L** = 12V-5W LED	**Blank** = factory white **BK** = black **SG** = grey	**Blank** = 120/347Vac **ZC** = 277Vac	**Blank** = no options **CW1** = cold weather 120Vac ***CW3** = cold weather 347Vac ****NEX** = NEXUS system interface **Available in 6V only.* ***Not all options available with NEXUS. Consult factory.*

LUMACELL

RG-HZ Series
Battery Unit for hazardous locations

The RG-HZ Series of battery units are designed specifically for installation in hazardous locations and other high-abuse, industrial environments. Extremely resistant to water, high impacts, vibrations and variations in temperature, the RG-HZ Series is ideally suited for areas with the risk of flammable gases, vapors or liquids that can create an explosive atmosphere. Equipped with efficient MR16 halogen lamps and with generous remote power capabilities, the equipment offers impressive illumination performance along an extensive path of egress.

Features

- **Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M19811, Class I, Zone 2, Groups IIC, IIB and IIA**
- **Certified temperature Codes for several types of emergency lamps**
- **Certified CSA C22.2 No141**
- **Polymeric frame, with built-in gasket to prevent water infiltration**
- **Heavy-duty 1/8-inch thick aluminum back plate with key-holes for secure wall-mount installation**
- **Two MR16 halogen lamps, shielded by a cast Aluminum housing and a polycarbonate cover**
- **Sealed, maintenance-free, Lead-Calcium batteries with up to 120 W emergency power**
- **Built-in microcontroller-based battery charger and self-test / self-diagnostic circuitry**
- **½-inch electrical conduit entry on both sides and at the top**

Typical Specification

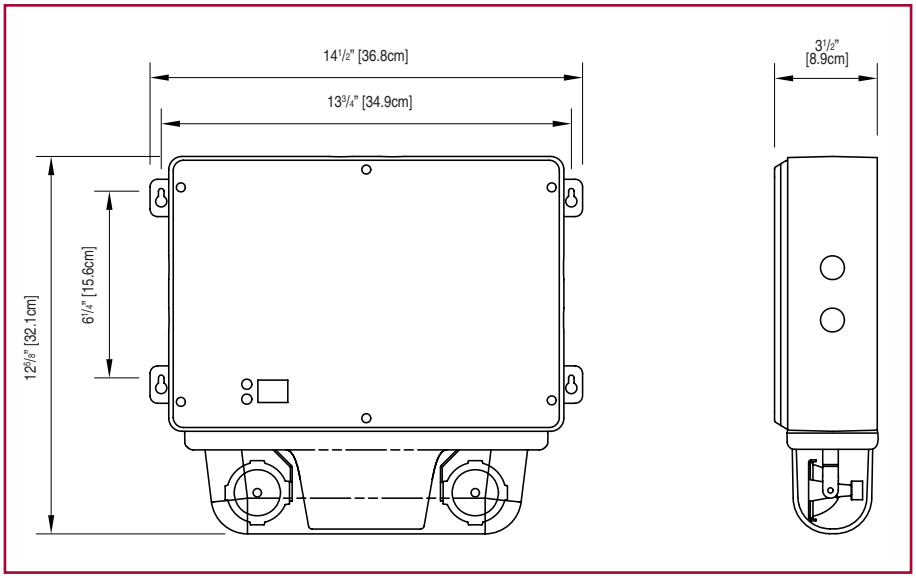
Supply and install Lumacell RG-HZ Series of battery units. Designed specifically for hostile environments, the equipment frame shall be of industrial grade polymetric material with gaskets around both sides of the frame contour. The frame shall be fixed between two plates made of 1/8-inch thick aluminum sheet. The back plate shall include four keyholes for wall-mount installation. The front plate shall include two water-tight lenses for pilot lights: AC-on and “Service required”. When specified, the equipment shall have attached a lower compartment containing two emergency lights with adjustable swivels and long-life MR-16 halogen lamps of ___ V and ___ W. The lamps shall be shielded by cast aluminum housing and protected by a shock-absorbent, transparent polycarbonate cover.

The equipment shall be certified for Hazardous Locations: Class I Division 2 Groups A, B, C and D, CSA C22.2 N. 141. The standard equipment shall have a dual AC input voltage: 120/347Vac and shall be equipped with a magnetic test switch located on the left side of the frame. The unit shall include self-testing / self-diagnostic functions monitored by a micro-controller and shall automatically self test for one minute every 30 days, 10 minutes in the 6th month and 30 minutes annually. The “Service required” LED shall light when a fault is detected. A four-LED diagnostic display located inside the equipment shall identify the source of the failure (battery, charger circuitry, lamp load). The battery unit shall be Lumacell Model – _____.

LUMACELL

RG-NX Series

Dimensions



Power Consumption and Unit Rating

Model	AC Specs		Wattage Capacity				
			30 min.	1 hr.	1.5 hrs.	2 hrs.	4 hrs.
RGHZ36	120/347 Vac	0.17 / 0.06 Amp	36	21	15	12	-
RG12HZ72	120/347 Vac	0.30 / 0.10 Amp	72	42	30	24	12
RG12HZ120	120/347 Vac	0.30 / 0.10 Amp	120	70	50	40	20

Temperature Codes

Lamp Rating	Temperature Code	Max. Temperature	Replacement part #
6V 10W	T3C	160 °C	580.0079
12V 12W	T3A	180 °C	580.0080
12V 20W	T2D	215 °C	580.0068

Note: Use qualified replacement lamps to avoid risk of over-heating

Ordering Information

EXAMPLE:

RGHZ	36	2	M10W			ATN
Series	**Capacity**	**# of Heads**	**Lamp/Wattage**	**Colour**	**A.C./ Voltage**	**Options**
RGHZ = 6 volts **RG12HZ** = 12 volts	**36** = 6V-36W **72** = 12V-72W **120** = 12V-120W	**Blank** = no heads **2** = 2 heads	**M10W** = 6V - 10 watt, MR16 **M12W** = 12V - 12 watt, MR16 **M20W** = 12V - 20 watt, MR16-IR	**Blank** = grey, standard	**Blank** = 120/347vac **ZC** = 277vac	**AT** = autotest audible **ATN** = auto Test ,non-audible (standard) **NEX** = nexus system interface

LUMACELL

IPL™ Series
IP65 Linear Fluorescent Fixture

Sturdy construction, easy installation, wet location fluorescent fixture

The IPL™ Series of fluorescent fixtures by Lumacell are offered as normally on standard linear fluorescent fixtures. When used with one of our fluorescent inverters, the IPL™ is converted to a self-powered emergency lighting unit. Suitable for damp or wet location, the IPL™, thanks to its polycarbonate enclosure and lens as well as the rustproof hardware, is truly a durable fixture.

Features

- **IP65 rated for wet and damp locations**
- **Polycarbonate enclosure and lens, vandal resistant and UV stabilized Rust proof hardware**
- **Ceiling, surface or pendant mounting**
- **Low profile, less than 4” deep**
- **Ultra efficient specular reflector with optimized shape**
- **32W T8 or 54W T5HO**
- **90 minutes of emergency operation when installed with our RSFSP or AM inverters**
- **Emergency operation from external DC power source when installed with our RSF Series inverters**
- **High efficiency and reliable electronic ballast, instant start or 3-step programmed rapid start**
- **120Vac to 277Vac universal and 347Vac input voltage available**
- **CSA certified to CAN/CSA-E60598-1:02**

Typical Specification

Supply and install Lumacell IPL™ Series of fluorescent fixtures as specified. The luminaire shall operate from 120Vac to 277Vac or 347Vac and use high quality instant start or 3-step programmed rapid start high efficiency electronic ballasts.

The body and lens shall be constructed of UV stabilized industrial grade vandal resistant polycarbonate. A durable formed gasket shall be provided between the enclosure and the lens and shall be designed specifically for hostile environments. The reflector shall be made of highly specular material and formed to maximize light output efficiency. All parts shall be corrosion resistant. A metal plate used to retain the ballast and reflector also serves to dissipate heat, therefore lengthening ballast life.

Lamps shall be as specified, either T8 or T5 HO linear fluorescent lamps, 32W or 54W. The lamps shall not be supplied with the luminaire. Models with an inverter from the RSFSP/AM series and illuminate one or two lamps during emergency operation for at least 90 minutes upon AC failure. During power outage, dual voltage source (AC/DC) models with an inverter from the RSF series, shall illuminate one lamp while the DC voltage is present.

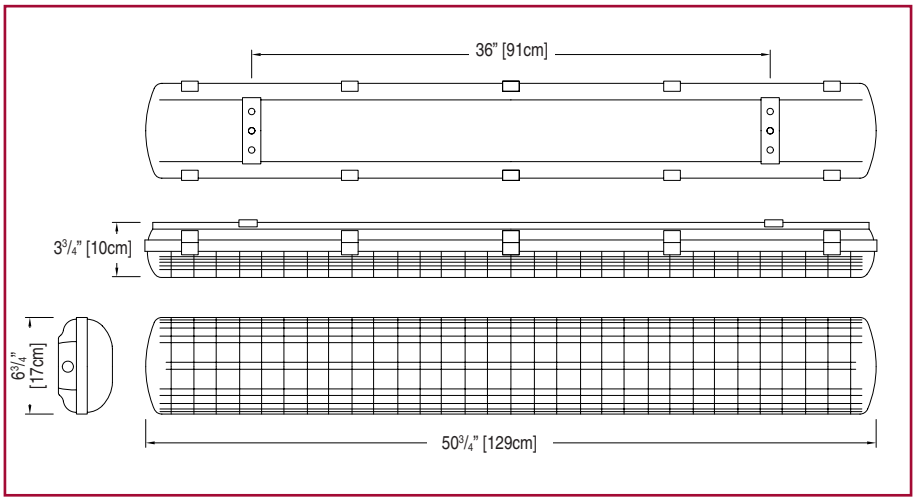
The fixture shall be CSA approved and meet IP65 requirements.

The inverters of RSF series shall be CSA approved.

The inverters of the RSFSP/AM series shall be CSA or cUL approved.

The fixture shall be Lumacell Model: IPL _____

Dimensions



Ordering Information

EXAMPLE:

IPL	8		
Series	**Lamp type***	**A.C./ Voltage**	**Accessories**
IPL = 48" (122cm) linier fluorescent	**8** = 2x lamps 32 watts T8 **5** = 2x lamps 54 watts T5HO *Lamps not included	**Blank** = AC only 120 to 277Vac **3** = A.C. only 347Vac	**Self-powered, one lamp emergency** **AM32-L** = inverter for IPL8 (complete code = IPL8AM32-L) **RSFSP/U/1100** = inverter for IPL8-3 (complete code = IPL8-3 RSFSP/U/1100) **AM12** = inverter for IPL5 (complete code= IPL5AM12) **Self-powered, two lamps emergency** **AM7** = inverter for IPL8 (complete code= IPL8AM7) **RSFSP/U/1100** = inverter for IPL8-3 (complete code= IPL8- 3RSFSP/U/1100) *Two lamp model not available for T5 bulb (IPL5)* **AC/DC option, using a remote battery, one lamp only in emergency mode:** **RSF3200** = 6 volts, 120Vac **RSF3200ZD** = 6 volts, 347Vac **RSF123200** = 12 volts, 120Vac **RSF123200ZD** = 12 volts, 347Vac **RSF243200** = 24 volts, 120Vac **RSF243200ZD** = 24 volts, 347Vac **RSF323200** = 32 volts, 120Vac **RSF323200ZD** = 32 volts, 347Vac **RSF483200** = 48 volts, 120Vac **RSF483200ZD** = 48 volts, 347Vac **RSF1203200** = 120 volts, 120Vac **RSF2103200ZD** = 120 volts, 347Vac

For more information on the RSF Series, please refer to Options & Accessories in your Lumacell catalogue.

CATALOG

Options & Acessories

LUMACELL

LumaSource Series

Time and labour saver only one conduit required!

In an existing or new installation where exit signs and emergency lighting may be supplied by a single 120VDC source using a common negative wire and a switched positive. 3 wire output from the system reduces the number of conductors by up to 40%. It also eliminates 50% of the conduit, EMT or BX runs by using a single common conduit for LED exits and emergency lighting remotes.

Features

- **Single-source 120 VDC supply for both exit and emergency lights**
- **Reduced number of conductors**
- **Eliminates 50% of conduit, BX or EMT runs for exit and emergency lighting**
- **Control and supervision functions on single modular board**
- **Complete package of full supervisory functions and alarms included in standard unit**
- **Floor-mount cabinet**
- **Battery is sealed maintenance free lead calcium**
- **All LumaSource Series systems are designed and manufactured in Canada**
- **CSA and Ontario Hydro approved**
- **BMEC (Building Materials Evaluation Commission) approved for compliance to the Ontario Building Code**
- **Overall reduction on power consumption using LED exit signs**
- **120 VDC Central Single Source Emergency Lighting System**

Operations

LumaSource Series Central Emergency Lighting Systems are available in free-standing cabinet style enclosures.

- Heavy duty, sheet-steel cabinet.
- Cabinets are painted ASA No. 61 grey electrolyte resistant enamel.
- Locking and hinged front door.
- Front access to battery charger for ease of inspection and servicing.
- Generous ventilation provided

Charger / Controls

Lumacell's solid state fully automatic charger features single module control board design. This feature provides cost effective superior performing equipment, with ease of maintenance and serviceability.

Standard Features and Controls

- LVD at 91% of nominal Battery voltage
- Temperature Compensation
- Ground Fault Alarm (Audible & Visual)
- DC Volt & Ammeter (2% Accuracy)
- AC present LED indicator
- Float level Charge LED indicator
- Equalize level Charge LED indicator
- Charger Failure Alarm
- AC Failure Alarm
- High Battery Voltage Alarm
- Test Switch
- Remote Monitor Alarm Panel
- Brownout Protection
- Dry Contacts
- BMEC - Ontario Building Materials Evaluation Commission Approved
- SPF - sprinkler-proof cabinet comes with drip shield

Optional Features Code

- Time Delay TD
- 3 Phase Sensing 3PH
- 12 Hour Recharge 12HR
- 30 or 90 day equalize cycle CYC 30 (90)

Application

New construction or retro-fit, the LumaSource Series utilizes the latest technology and engineering to reduce the cost of emergency lighting installations. The unique 3 wire design allows for the use of just one conduit. With one positive dc normally energized conductor and a common negative conductor the LED exits are supplied constant power. With the same common negative conductor and a switched positive dc conductor the remote emergency lights are powered on demand. Available in sizes from 4120 watts to 22520 watts for 30 minutes.

Electrical

Input: 120V, 240V, 347V, 600V AC 60HZ Single Phase

Output: 120V DC (3 wire unswitched positive, common and switched positive)) Systems have been designed for minimum 1/2 hour operation time and are capable of full recharge in 24 hours.

For systems rating chart and ordering guide please see Page 63. Other discharge times are available upon request.

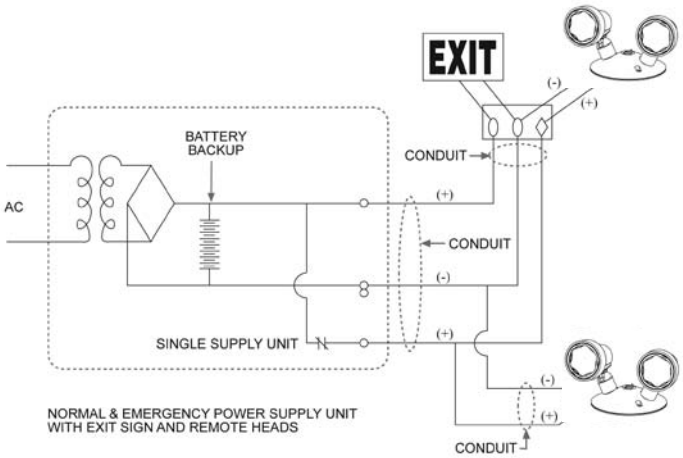
Warranty

The complete system is guaranteed for a period of one (1) year against defects in workmanship and materials. The battery portion of the equipament carries a ten (10) year pro-rata warranty during its useful service life against defects in workmanship and materials. The battery warranty is subject to the provision of normal testing and inspection as specified in the Canadian Electrical Code, Section 46-102, and National Fire Code of Canada. Limit room ambient temperature between 0°C to 35°C (32°F to 95°F). Optimum system performance occurs at 25°C (77°F). A battery service life is defined as the period which the battery could still provide at least 80% of its rated capacity.

Approvals

- CSA Certified
- Ontario Hydro: Rule 46-108 (3)

Typical Interconnection Wiring Diagram



CAD Drawing illustrates how the LumaSource Series is applied, saving time, material and money.
Call your local Lumacell Representative for further information, or application assistance.

Develop a Model Number as shown in the following chart

(1) System Designation	(2) Single Phase	(3) Battery Type	(4) Capacity in Watts	(5) Qty of Exit Signs	(6) Mounting	(7) Output Voltage	(8) Discharge Time (Minutes)	(9) Optional Equipment
LS4	120Vac 240Vac 347Vac 600Vac	SL Sealed Lead Calcium	4120 6400 9390 11260 13140 18780 22520	50E 100E	C = Console	120V DC	30 For other discharge times please contact factory	TD 3PH 12HR CYC30 CYC90

Enclosure Dimensions

System Series	Console H x W x D
LS4 4120	38” x 38” x 18”
LS4 6400-11260	38” x 38” x 28”
LS4 13140-22520	56” x 38” x 28”

DC Central Systems

Fully automatic charger, battery and specified transfer and distribution features

Lumacell's Central DC Systems are utilized where a large number of remote heads or standard 120 Volt DC fixtures such as incandescent lamps may be supplied from a single source. The systems offer the advantage of a central location for maintenance with full supervision of all operating functions. Contact your Lumacell representative for information.

Features

- **24, 36 and 120 VDC systems sealed lead acid batteries**
- **Control and supervision functions on single modular board**
- **Complete package of full supervisory functions and alarms included in standard system**
- **Battery selection of totally sealed maintenance free lead acid batteries**
- **All systems are designed and manufactured in Canada**
- **CSA certified**
- **BMEC (Building Materials Evaluation Commission) approved for compliance to the Ontario Building Code**

Charging Operations

The charger will fully recharge the battery within twenty four hour period from a full discharge. The charger maintains regulation of ± 0.5% of voltage for a ± 10% input voltage variation. The charger provides automatic equalize cycle whenever the charge current is more than a preset value. The charger operates in an equalize mode after each utility power return. This ensures maximum battery capacity at all times, with maintained life expectancy.

Charger Features

Lumacell has developed a unique modular charger design in which all electronic control functions and pilot lights are mounted on a single control board. This is connected to the operating power components using screw type connectors– making the circuit board easily removable by means of only four screws. Any required field service, consequently, is faster and significantly simpler than with older style multiple board designs.
All chargers include a contactor which automatically disconnects the batteries from the load when battery bank voltage falls below 91% of nominal, in order to prevent over-discharge of batteries. The operating temperature for the system is from 0ºC to 40ºC. The control board is temperature compensated in order to meet the battery required float voltage at temperatures below and above 25°C, as recommended by battery manufacturers. Internal control allows for spark free battery bank connection during installation and scheduled maintenance procedures.

Standard Controls

The front panel includes the following controls:

- AC Input Circuit Breaker or Switch
- DC Battery Voltmeter (2% Accuracy)
- DC Charge Rate Ammeter (2% Accuracy)
- Green "ac on" LED (on at all times except during power failure)
- Green "float" LED (indicates that the battery is receiving float charge to maintain the battery at full charge at all times)
- Amber "equalize" LED (indicates that the charger is in the high charge equalize mode, balancing the charge level in the individual battery cells)
- Brown-out protection
- Test switch

Standard Alarms

- AC Failure LED and Alarm
- High Battery Voltage LED and Alarm
- Charger Failure LED and Alarm
- Ground Leakage Alarm
- An audible alarm and a common LED shall indicate "Ground Leakage" and/or Fuse/Circuit Breaker open/trip alarm.

Optional Alarms

- Fuse/Circuit Breaker Open/Trip Alarm

Batteries

Sealed Maintenance-Free Lead Acid Gas Recombination (SL Series)
Uses gas recombination to eliminate the escape of hydrogen. Thick plates are constructed of high strength material which resists shedding, flaking, or mechanical failure. Design Life; 10 years under normal operating conditions.

Transfer Options

System may be selected to either turn on a normally "off" load or alternatively on 120 Volt DC systems, maintain a normally"on" load.
Normally "off" (DC load): (TPD)
If the lamp load is going to be turned on in the event of power failure add suffix –TPD to the model number.
Normally "on" (AC/DC load): (TPA)
120 V DC systems only:
The 120 V incandescent load shall have 120 VAC power normally supplied to it and the load shall be transferred to 120 VDC upon failure. Add suffix –TPA to the model number. For other AC input voltages please contact factory.
Both Normally "on" & "off" loads: (TPA/TPD) Both of the above apply.

Distribution Options

A separate distribution panel is available for all systems.
A choice of fuses or circuit breakers is available.
Fuse Distribution Panel
Select -DPF ( ) for separate distribution fuse panel.
Select -DPFF ( ) for separate distribution fuse panel with visual and audible alarm on main console for failure of any fuse.
Note: "( )" indicates the number of circuits required.
Circuit Breaker Distribution Panel
Specify - DPCB ( ) for separate circuit breaker panel.
Specify - DPCAB ( ) for separate circuit breaker panel with visual and audible alarm on main console for tripping or opening of any breaker.
Note: "( )" indicates the number of circuits required.

Other Options

CODE	DESCRIPTION
-TD( )	Time delay, specify time, 1–10 minutes
-RRAP	Recessed remote alarm panel
-3PH	3 phase sensing
-ZSC( )*	Common Zone Sensing
-ZSI( )*	Individual zone sensing, specify number of zones (external panel)
-SPF	Sprinkler proof cabinet c/w drip shield
-CYC 30 (90)	Monthly/yearly auto test
-BCB	Input battery circuit breaker

* Zone explanation: each specified zone relay monitors an individual lighting circuit in a building. Should any or all of the monitored circuits lose AC power, the connected lighting load will automatically illuminate:
a - all zones if ZSC is specified
b - that zone only if ZSI is specified

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SL Series: Sealed Maintenance Free Lead Acid Battery Capacity Chart @25°C

	Model	Nominal Backup Capacity 30 mins	60 mins	90 mins	120 mins
A	LM24SL35	820W	490W	355W	285W
B	LM24SL65	1280W	820W	615W	490W
C	LM24SL90	1875W	1115W	815W	655W
D	LM24SL100	2250W	1340W	975W	785W
E	LM24SL120	2625W	1560W	1140W	920W
F	LM24SL180	3755W	2235W	1630W	1315W
G	LM36SL35	1230W	730W	537W	432W
H	LM36SL65	1920W	1230W	927W	741W
I	LM36SL90	2815W	1675W	1220W	985W
J	LM36SL100	3375W	2010W	1465W	1180W
K	LM36SL120	3940W	2345W	1710W	1380W
L	LM120SL35	4120W	2450W	1790W	1440W
M	LM120SL65	6400W	4100W	3090W	2470W
N	LM120SL90	9390W	5590W	4080W	3290W
O	LM120SL100	11260W	6700W	4890W	3940W
P	LM120SL120	13140W	7820W	5710W	4600W
Q	LM120SL180	18780W	11180W	8160W	6580W
R	LM120SL200	22520W	13400W	9780W	7880W

All capacities are in watts to 91% of nominal voltage.
Note: For other voltages and capacities contact your sales representative.

Cabinets

Systems are available in a free standing floor mount cabinet. The cabinet shall be constructed of not less than 14 gauge steel with corrosion resistant undercoating. Standard finish is ASA61 grey baked enamel.

Cabinet dimensions for sealed lead acid batteries

MODEL SERIES	CABINET TYPE
LM24SL 35-180	5C
LM36SL 35-100	5C
LM36SL 100-120	RL15
LM120SL 35	RL15
LM120SL 65-100	RL18-EL
LM120SL 120-200	RL28-EL

Electronics and batteries are in the same cabinet.

Dimensions

CABINET TYPE	DIMENSIONS H	W	D
5C	25”	29”	14”
LM15	38”	38”	18”
LM18-EL	38”	38”	28”
LM28-EL	56”	38”	28”
LM38-EL	72”	38”	28”

SPF or Drip Shield extends 2.5” on each side of cabinets. All have locking hinged single front door. Provide 15” minimum clearance from cabinet sides for proper ventilation.

Typical Specification

Provide and install a complete emergency lighting system as described herein and shown on the drawings.
The system shall consist of a charger, battery and specified transfer and distribution features.
The charger shall be fully automatic solid state type using integrated circuit control. The output voltage variation shall be ± 0.5% for input variation of ± 10%. The charger shall recharge the battery within 24 hours after a power failure. The charger shall include a contactor to automatically disconnect the battery from the load when the battery voltage falls below 91% of nominal.
The charger shall be of a modular design with all pilot lights and electronic control functions on a single board mounted behind the front panel. The single control board shall have LED pilot lights for the following functions (which shall show through the front panel):

- Green “ac on” LED
- Green “float” Charge LED
- Amber “equalize” LED

The single control board shall also include LED and an audible alarm with call-back function for the following alarms:

- AC Failure
- High Battery Voltage
- Charger Failure
- Battery Ground Leakage

Optional Alarms

- Fuse/Circuit Breaker Open/Trip

Select SL battery
Select battery bank voltage, capacity and duration of required backup time.
Select AC input voltage.
Select system transfer option from TPD( ), TPA( ), or TPA( )/TPD( ) where the load watts are shown in brackets.
Select options
The equipment shall be provided with a separate distribution panel with _____ fuses or circuit breakers (select one) rated at _____ Amps.

Optional: All distribution fuse or circuit breaker panels shall be alarmed so that if a fuse or circuit breaker has failed during operation, a visual and audible alarm is activated.

The system shall be –Lumacell System LM (Select Model Number from chart below). Select Remote Fixture from fixture section of Catalogue.

Product Code Construction

LM
Lumacell Designation

DC Voltage
A ☐ 24
B ☐ 36
C ☐ 120

Battery Type
Blank = SL

Capacity
Select from Battery Capacity chart in folder

Operating Time (minutes)
☐ 30
☐ 60
☐ 90
☐ 120
☐ 180
☐ 240

AC Voltage (Vac)
A ☐ 120
B ☐ 208
C ☐ 240
D ☐ 277
E ☐ 347
F ☐ 480
G ☐ 600

Transfer Options
Specify Watts for each typeof load
☐ TPD( )
☐ TPA( )
☐ TPA( )/TPD( )

Distribution Options
Specify number of circuits
☐ DPF( )
☐ DPFF( )
☐ DPCB( )
☐ DPCAB( )

Other Options
Specify no.of zones sensing
☐ ZSC( )
☐ ZSI( )
☐ TD( )
☐ BCB
☐ 3PH
Specify time
☐ CYC 30
☐ CYC 90

From the selections of features in the SPECIFICATION GUIDE construct the Model Number as shown above.

Standard Features

CODE	DESCRIPTION
GL	Ground leakage.
FC	One set of dry contacts for remote fault sensing.
RAP	Remote alarm panel.
SPF	Drip shield (2.5” overhang on console).
BRO	Brownout.
BMEC	Ontario Building Materials Evaluation Commission approved.

Warranty

The complete system is guaranteed for a period of one (1) year against defects in workmanship and materials. The battery portion of the equipament carries a ten (10) year pro-rata warranty during its useful service life against defects in workmanship and materials. The battery warranty is subject to the provision of normal testing and inspection as specified in the Canadian Electrical Code, Section 46-102, and National Fire Code of Canada. Limit room ambient temperature between 0°C to 35°C (32°F to 95°F). Optimum system performance occurs at 25°C (77°F). A battery service life is defined as the period which the battery could still provide at least 80% of its rated capacity.

Zone Sensing Option

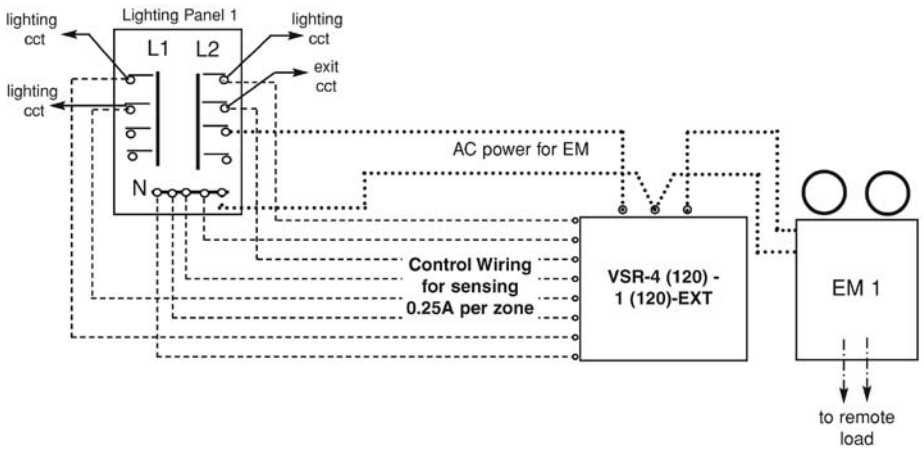
Typical Specification

Each battery pack shall be provided with either internally or externally, zone sensing relays. These relays shall be pre-wired by the factory within the battery pack or pre-wired in their own enclosure. Each zone shall have it's own 'push to test' push button mounted on the side of the battery pack or in the case of a separate enclosure, on the enclosure door. Each zone push button shall be clearly identified to the corresponding branch lighting or exit circuit being monitored. Provide a minimum of two (2) spare zone circuits for future use. The zone sensing panel shall be equal to that of a Lumacell model VSR-(number of zones)-(ac voltage of zones)-(number of unit equipment per VSR panel)-(ac voltage of unit equipment)-(class of enclosure), ie: VSR-4(120)-1(120)-EXT

Operation

The VSR (Voltage Sensing Relay) option activates all of the emergency lighting if only one, multiple or all zones become de-energized through either a power failure or lighting circuit breaker tripping. This greatly enhances the life safety system, as any failure of a lighting circuit will ensure emergency egress lighting. A separate test button for each zone enables individual testing of each circuit monitored. The VSR can be specified to be manufactured within a battery pack or in its own separate enclosure.

Typical VSR-4(120)-1(120)-EXT Wiring



Ordering Information

EXAMPLE:				
e.g.VSR	- 5 (347)	- 1(120)	-INT	
Series	**AC voltage of zones**	**AC voltage of Packs**	**Cabinet**	**Other Options**
e. g. VSR *# of ccts (zones) or lighting panels monitored*	**120** **240** **277** **347** # of Battery Packs Served	**120** **240** **277** **347**	**-INT** = VSR supplied in battery pack enclosure **-EXT** = VSR supplied in its own EEMAC 1 enclosure **-EXT-DT** = VSR supplied in its own EEMAC 12 (Dust Tight) enclosure **-EXT-DTF** = VSR supplied in its own EEMAC 4 enclosure **-EXT-XP** = VSR supplied in its own Classified Area Use enclosure (class, division & group must be specified)	**PB** = push button zone testing **PL** = pilot lamp per zone

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NEXUS

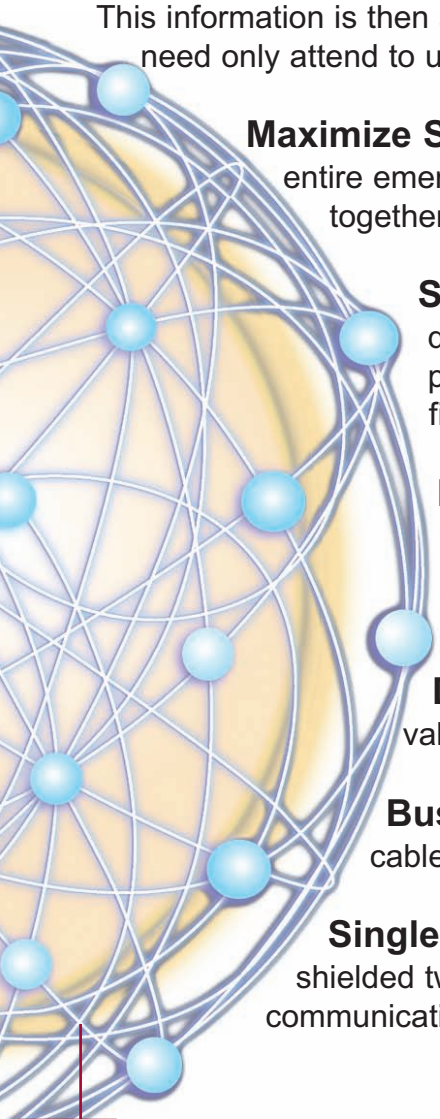
What Nexus can do for you

Nexus is a real-time emergency lighting monitoring and control system which offers building owners/managers control over their public safety obligations, and helps manage installation and the maintenance of an emergency lighting system. A Nexus network enables the user to –

- Manage the installation and removal of components
- Cost effectively test and monitor the system
- Assign fittings to groups
- Manage maintenance activities
- Ensure tests are preformed properly
- Prepare reports
- Log test results and print as required

Advantages of Nexus

Labor Saving – Nexus enables the user to remotely activate emergency lighting units and retrieve status information.
This information is then automatically stored in an electronic log book. Maintenance personnel need only attend to units that require maintenance.



Maximize System Availability – Nexus can test and report on the status of an entire emergency lighting system within a building individually, in groups or all together.

Self Monitoring – Nexus is self-monitoring. In an event of cable damage, Nexus can indicate the location of the fault down to the particular branch, which could potentially save hours of manual fault finding

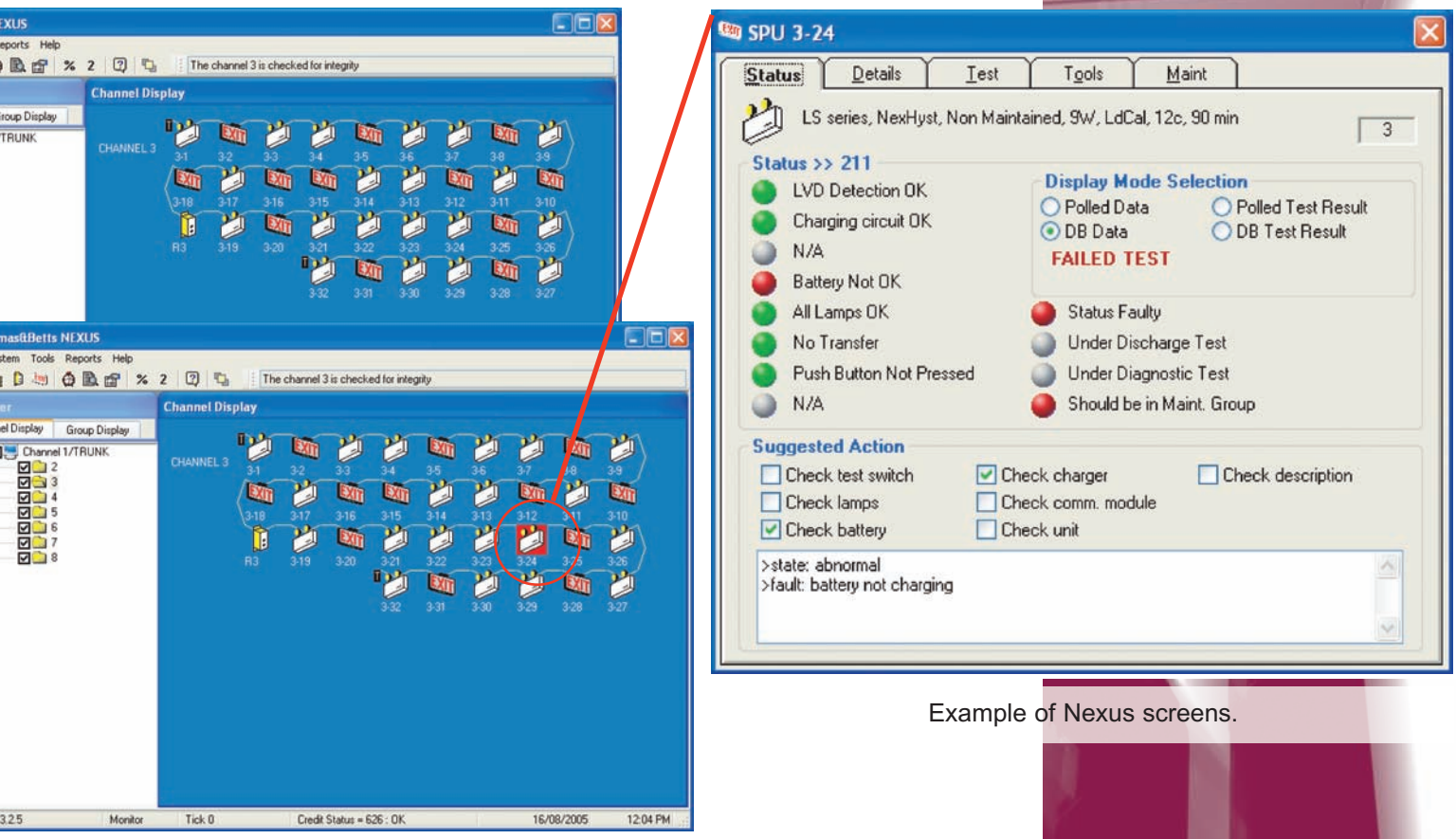
Independent System – The operation of emergency lighting is not impeded by nor dependant upon Nexus. A Nexus light fitting can be removed from or added anywhere within the Nexus network without interruption to the operation of the system.

Data Integrity – Nexus can minimize human errors which affect the validity of data, by automating processes and logging maintenance data.

Bus Topology – Nexus fittings are connected by a twisted pair data cable in a double terminated multi-drop bus topology.

Single Twisted Pair Cable – The Nexus system requires a single shielded twisted pair cable as the network medium. The cable offers high communication speed and high resistance to external interference.

Easy to use Graphic User Interface – The Nexus software contains an easy to use graphic user interface which guides the user through a series of functions



Example of Nexus screens.

Nexus Warranty – Lumacell emergency lighting equipment units with the Nexus options are fully warranted to be free of defects in material and workmanship under normal use for a period of five (5) years. The full warranty period begins on the date of installation or ninety (90) days from the date of shipment, whichever date is earlier.

Wherever you are, you can depend on NEXUS to get the job done!

For more information please contact us at:
1-866-857-5711 (ext. 7515)
leila.sedighi@tnb.com

www.lumacell.com

All information and specifications contained in this catalogue are subject to change due to engineer design, error and omissions. Illustrations and diagrams within this catalogue may vary from actual products.

Thomas&Betts

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